

American Artisan

and

Hardware Record

Sheet Metal - Roofing - Warm Air Furnaces - Stoves

Vol. 92, No. 12

CHICAGO, SEPTEMBER 18, 1926.

\$2.00 Per Year

Make More Money —Sell "AFCO" Healthful Systems



AMERICAN BOILER PLATE FURNACE
Less Fuel - Less Dirt - Less Repairs
(LEADER FURNACE AND SHEET METAL WORKS)

The Sign of a Successful
Furnace Dealer

THE hundreds of "AFCO" Dealers have found the key to a bigger business and larger profits.

"AFCO" Dealers are not in the price competition business. They sell "AFCO" Healthful Heating Systems and each installation earns a good profit.

"AFCO" Boiler Plate Furnaces have features far in advance of any others, and are the best that long experience and unlimited resources can produce.

"AFCO" Dealers have proved that Home Owners are willing to pay the small difference between an ordinary system and an "AFCO" System when they know all the facts.

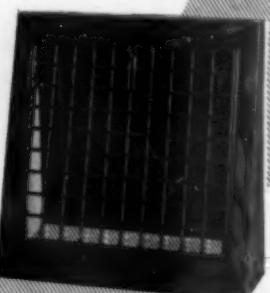
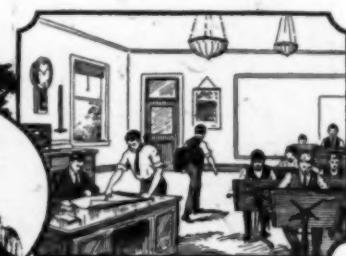
Join the ranks of the big money makers. Send for full particulars today.

The "AFCO" Agency is available to only **one** live dealer in each town.

American Furnace Co.

DEPT. 38

2719-31 Morgan St. St. Louis, Mo.



MUELLER

You Have Your Choice!

This or *This*

Needless to say, you can have either a smokeless furnace or a smoke-producing furnace. You can have either a pipeless or a piped furnace. You can have either a large coal burner or a small coke burner. You can have either a gas burner or a wood burner. You can have either a hot water system or a warm air system. You can have either a central heating system or a room-by-room heating system. You can have either a forced air system or a natural draft system. You can have either a high pressure system or a low pressure system. You can have either a high temperature system or a low temperature system. You can have either a high efficiency system or a low efficiency system. You can have either a high cost system or a low cost system. You can have either a high maintenance system or a low maintenance system. You can have either a high reliability system or a low reliability system. You can have either a high safety system or a low safety system. You can have either a high comfort system or a low comfort system. You can have either a high value system or a low value system. You can have either a high performance system or a low performance system. You can have either a high quality system or a low quality system. You can have either a high durability system or a low durability system. You can have either a high efficiency system or a low efficiency system. You can have either a high reliability system or a low reliability system. You can have either a high safety system or a low safety system. You can have either a high comfort system or a low comfort system. You can have either a high value system or a low value system. You can have either a high performance system or a low performance system. You can have either a high quality system or a low quality system. You can have either a high durability system or a low durability system.

Why Tolerate the Smoke Nuisance?

IT IS not necessary to worry along with the smoking, wasteful type of furnace that burns large quantities of fuel and furnishes little heat. You can eliminate the smoke nuisance forever—make substantial savings on coal bills—and have a clean furnace and a clean home—by installing the SUPER-SMOKELESS Warm-Air Furnace.

This remarkable furnace does no expensive maintenance or part of under and over cleaning. No smoke-laden air leaves your house—no smoke enters the house—no smoke passes through the walls—or an outside part of the furnace. And there is no smoke in the flue. You save money on fuel, because every bit of the fuel you pay for when you install the furnace which effects complete combustion of all smoke and gases.

SUPER-SMOKELESS WARM-AIR FURNACES

UTICA HEATER COMPANY
"Pioneers in Smokeless Combustion"
UTICA, N.Y.

Write Today for the Complete Story

With or Without Smoke?

DO YOU think a Home Owner would prefer to have a furnace which burns the coal with or without smoke? SUPER-SMOKELESS Furnaces burn even the cheapest grades of soft coal smokelessly, utilizing as valuable fuel the smoke and gases ordinarily wasted up the stack. This means a large saving in fuel, in addition to better health and cleanliness. SUPER-SMOKELESS Furnaces have also proved remarkably efficient with fuel oil, hard coal or coke—thus protecting the owner against any fuel emergency. We are telling the public about the many superior advantages of these furnaces through the medium of the SATURDAY EVENING POST. This advertising will create a large demand for SUPER-SMOKELESS Furnaces, and the dealer who takes on out line NOW is sure to reap large rewards.

Write for Complete Information Today

UTICA HEATER COMPANY

UTICA, N.Y. — CHICAGO, ILL. — MANUFACTURERS OF THE

CELEBRATED LINE OF WARM AIR FURNACES FOR EVERY HEATING NEED



Published Weekly by American Artisan and Hardware Record, Inc., 620 South Michigan Avenue, Chicago, Illinois.
Entered as Second Class Matter June 25, 1887, at the Post Office at Chicago, Illinois, under act of March 3, 1879.

NIAGARA

FURNACES

Ask Any Niagara Dealer---

Why it is called the Dealer's Choice.

Every Niagara Dealer is a Niagara enthusiast.

The Niagara is built for the Dealer—built for the customer—built for the future. Priced to sell quickly and made for heavy duty. Laboratory tested throughout. When you sell a Niagara you know it is mechanically right.

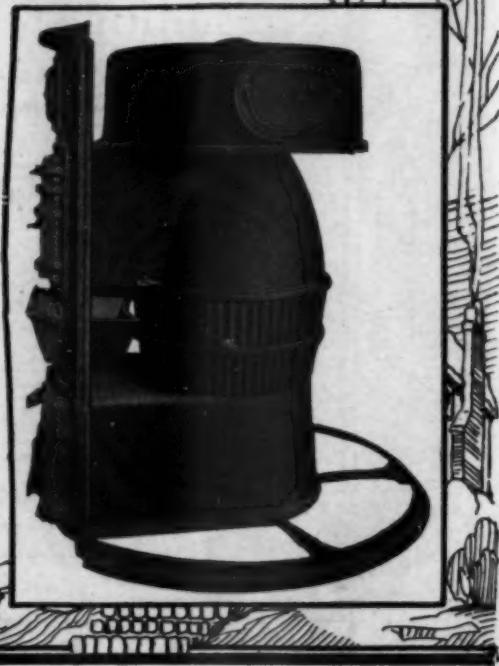
Our Dealer cooperation is the kind that means business.

Write or wire us for details

The Forest City Foundry & Mfg. Co.

1220 Main Avenue

Cleveland, Ohio

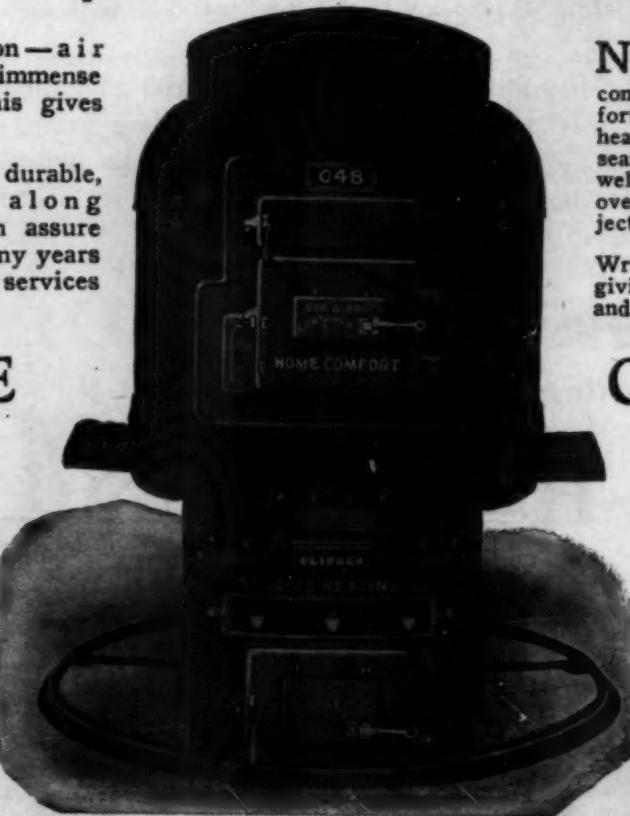


Built for Speed and Endurance, Too—

STEEL construction—airtight and with immense radiating surface—this gives quick heating.

But be sure you get durable, sturdy construction along with steel. You can assure your customers of many years of real severe heating services with the

“HOME



“HOME COMFORT”
Steel Furnaces are sold
only to the trade—The
agency is an assured
money maker. Let us
outline the Home Com-
fort Agency plan to you
now. Write for our book-
let “The Joy of Home
Comfort.”

NOTICE the large double doors and the solid, sound front construction on the “Home Comfort.” The dome is one piece heavy gauge steel plate. The one seam is tight riveted practically welded and is in front directly over the feed door where it is subjected to the least heat.

Write today for complete catalog giving full detailed information and numerous illustrations.

COMFORT”

ST. LOUIS
HEATING
COMPANY

2901-11 Elliot Avenue
St. Louis, Missouri

PITTSBURGH DISTRIBUTOR
Wagener Bros., 3005 East Street

The fact

that more and more furnace manufacturers are making or selling steel furnaces today than ever before helps emphasize the worthiness of the Weir.

Remember that the Weir is the original steel furnace--that it is now in its 45th year--that it is original and exclusive in design and that it is the highest grade furnace made.

The exclusive features of the Weir alone outnumber the total number of ordinary features of most of the other steel furnaces made--the leadership of the Weir is earned strictly on its high quality.

Before you decide to sell steel furnaces you owe it to yourself and your business to make a complete study of the steel furnace field and know all about the Weir.

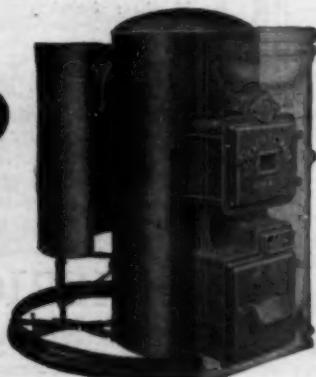
Write for a copy of



"The Book of Weir Facts," today

The MEYER FURNACE CO.
Peoria, Illinois

Weir Steel Furnace



Mention AMERICAN ARTISAN in your reply—Thank you!



Simplicity - A Big Feature of Vernois Construction

FEWER parts, made more rugged where greater need exists, together with the arched design make the Vernois as noteworthy for its simplicity as for its durability.

This means not only is it easier to install, but that there will be fewer requirements put upon the dealer.

Vernois Pipe and Pipeless Furnaces

THE Vernois will help you secure the jobs. Vernois users will be advertisers for you and will boost you and the furnace which you install. Write for complete illustrated catalog and our extremely attractive price proposition.

MOUNT VERNON FURNACE & MFG. CO. : Mount Vernon, Ill.

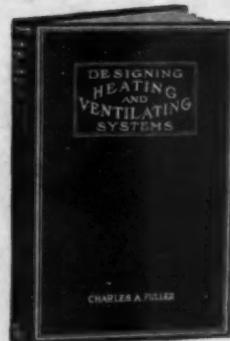
Distributors

Central Heating Supply Co., 1123-29 W. 37th St., Chicago, Ill.	A. M. Miller, 3887 W. 21st St., Cleveland, Ohio
J. M. Bailey, 3588 S. Broadway, Denver, Colo.	L. C. Manley, 1305 West Ave., Medina, N. Y.
Stove Dealers Supply Co., 310 Chestnut St., Milwaukee, Wis.	Munroe & Son Furnace & Supply Co.
Alles Furnace Co., 115 S. 14th St., St. Louis, Mo.	1718 Cass St., Omaha, Neb. The Kober Company
TRAVELING SALESMEN: Good territories open on commission basis.	5th & E Sts., N. W. Washington, D. C.

The
VERNOIS
A
Better
Product™

Say you saw it in AMERICAN ARTISAN—Thank you!

Books to read Now!



245 Pages,
6x9 ins.

89 Figures—
Cloth, \$3.00

Designing Heating and Ventilating Systems

By
Charles A. Fuller
Consulting Engineer

THIS new edition, treats the practical application of engineering rules and formulas in every day use, in laying out steam, hot water, furnace and ventilating equipment for buildings of all kinds, presented in a simple manner.

This book explains the heat unit, foot pound and similar measures in such a way that the less technical mind can readily understand and apply them.

It also explains in detail exactly the same methods that the leading engineers use in determining the sizes and proportions of equipment in every day work. The quickest and easiest methods of determining the proper amount of radiator surface for a room or building of any size are described.

Plumbing and Heating Contractors will find it an invaluable reference book. Every phase of Heating and Ventilating treated is developed along the lines of the most recent practice.



258 Pages,
6x9 ins.

77 Figures—
Cloth, \$3.00

Furnace Heating

By
William G. Snow

Member: American Society of Mechanical Engineers; American Society of Heating and Ventilating Engineers

THIS practical book deals with the different types of furnaces, their design, construction and proper installation, including warm air, combination heating systems, also covering the main features of the one pipe or pipeless furnace.

The author explains in simple English practical information on heating and ventilation of school and public buildings, churches, stores, etc. He also covers the setting up of furnaces, and describes all types of furnace fittings.

AMERICAN ARTISAN
620 S. Michigan Ave., Chicago, Ill.

Have You Been Converted?

Do You Realize and Capitalize the Superior Heating Features of a High Grade Boiler Plate Furnace Such as the Armstrong or Are You Still On the Fence of Doubt and Indecision?

WHY should you hesitate to add this fine heater to your line when many of the best and most experienced dealers of the country have seen the "handwriting on the wall" and now sell "steel" as well as cast iron furnaces?

You might as well be a "one-armed" paper hanger as to try to succeed today with only cast furnaces (with their joints, cement and high-priced repair parts), to offer an enlightened public.

Profit By Past Experience!

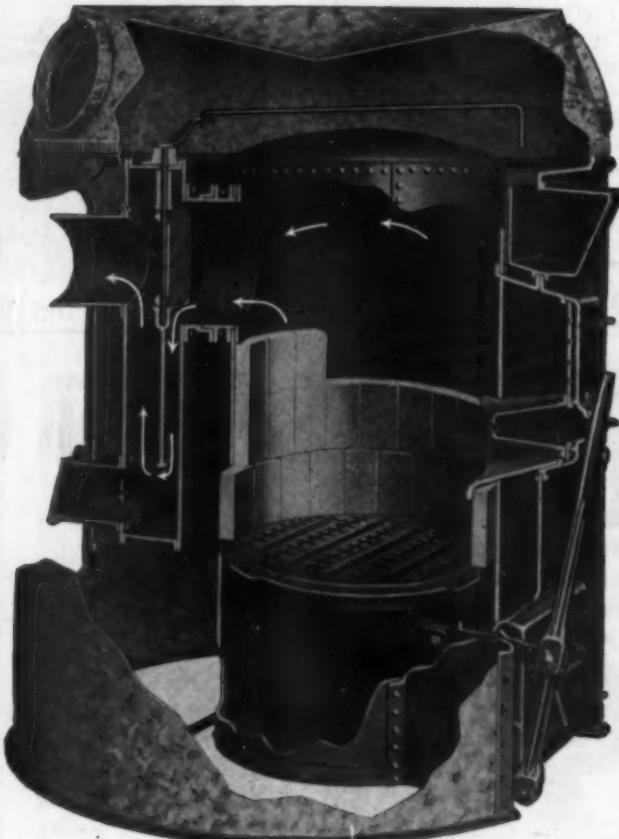
Replace those cracked and warped furnaces this fall with *Armstrongs*—Please your customers—make a good profit and get lined up right for a better 1927.

Write today for proposition

Authorized Distributors:

A. Y. McDonald Mfg. Co., . . . Omaha, Neb.
Robinson Furnace Co., . . . Chicago, Ill.
Heating Supply Co., . . . Pittsburgh, Pa.
Cincinnati S. M. & Roofing Co., Cincinnati, O.
Stockhoff Supply Co., . . . St. Louis, Mo.

Cold Riveted and Welded—
Smoke, Gas and Fume Tight



Extra Deep Fire Pot
Extra Long Fire Travel
Extra Large Casings

Outside Shaker
—Heavy Grates
Prompt Shipment
—All Sizes

The Thomas
& Armstrong Co.
Dept. 501
LONDON, OHIO

Please mail Armstrong
Furnace Catalog and full
details of your dealer prop-
osition.

Name _____
Address _____

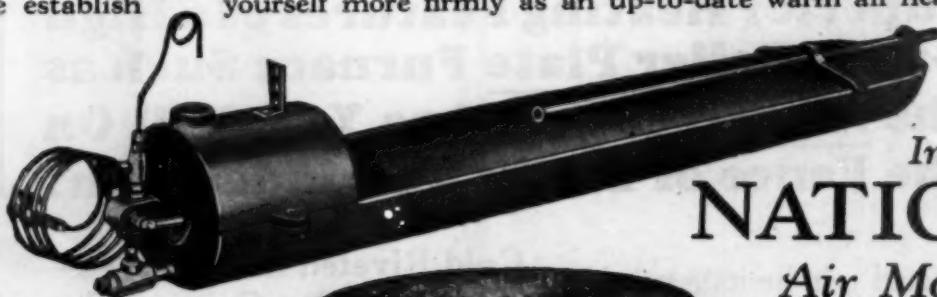
The THOMAS & ARMSTRONG CO.
Dept. 501 **LONDON, OHIO**

PROPER humidity is an important part of warm air heating and we as warm air heating pioneers and successful manufacturers for over half a century believe that the National Air Moistener solves perfectly the humidity question.

The National Air Moistener is entirely unlike any other humidifier on the market—it is absolutely high grade and reliable in all respects and deserves your utmost consideration.

It is a specialty yet a real necessity with which you can materially increase your profits and at the same time establish yourself more firmly as an up-to-date warm air heating contractor.

Write today for complete details



The New Improved
NATIONAL
Air Moistener



IT slides in over radiator—fits any style or make of furnace—has only a few simple parts and is absolutely fool-proof. It is entirely automatic—connects directly to city water—cannot overflow.

IT has no intricate parts to get out of order—takes care of itself and can be *regulated* to give the exact humidity desired. It is extremely easy to install—notice illustration, you need but cut one hole in bonnet.

ROBINSON FURNACE CO., 205 W. Lake St., CHICAGO, ILLINOIS

BRILLION FURNACES

THE dealer who specializes in up-to-date installation work will find that Brillion Furnaces fit in perfectly with his desire to do good work and sell quality furnaces at a fair price.



Find out now why Brillion Furnaces make good profits for our dealers.

YOU need but see the Brillion to know that it stands out as the quality furnace of its type on the market today. Make your installations pay a bigger profit by selling Brillion Furnaces.

Let us send you complete details of construction.

Write for Catalog No. 45 today

Branches in Chicago, Ill.,
Minneapolis, Minn.,
Milwaukee, Wis., Seattle

BRILLION FURNACE CO.
200-300 Park Ave., Brillion, Wis.

Send this coupon today

Send me details, prices and your catalog No. 45.

Name _____

Address _____

"FABRIKATED" REGISTER FACES

For Cold Air Inlets—For Warm Air Outlets

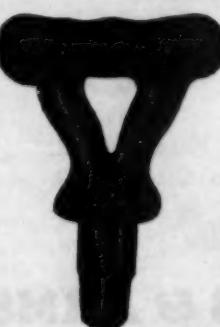
Any Size—Any Finish



82%
Open Area

A METAL FACE AT A PRICE YOU CAN AFFORD TO PAY
Every furnace man should know about "Fabrikated." Do you?

INDEPENDENT REGISTER & MFG. CO.
3741 E. 93d ST., CLEVELAND, O.



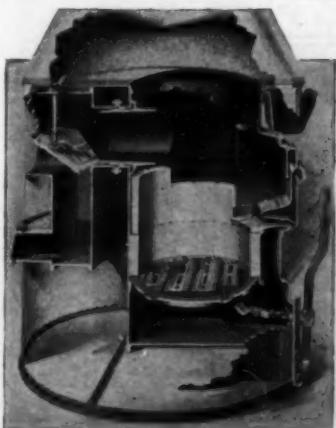
FANNER STOVE AND FURNACE TRIMMINGS

For Quality and Service use
Fanner Trimmins. We operate
our own Malleable and Gray
Iron Foundries.

Write today for latest illustrated
catalog which lists and describes
our complete line.

THE FANNER MFG. COMPANY
BROOKSIDE PARK CLEVELAND, OHIO

The Williamson BOILER PLATE FURNACE



Guaranteed for 10 Years

oxygen directly over the flames, consuming all the heat elements in the fuel. Designed with the demands of the oil burner in mind, making it ideally adapted to any fuel.

Many other attractive features further emphasize the superiority of the Williamson Boiler Plate Furnace. New and interesting sales policy gladly submitted. Make sure of your territory NOW.

The Williamson Heater Co.
Cincinnati, Ohio

A restful night on Lake Erie

on one of the great ships of the **C & B Line** makes a pleasant break in your journey. A good bed in a clean, cool stateroom, a long, sound sleep and an appetizing breakfast in the morning.

Steamers

"SEEANDBEE" — **"CITY OF ERIE"** — **"CITY OF BUFFALO"**

Daily May 1st to November 14th

Eastern Standard Time

Leave Cleveland—9:00 P. M.	Leave Bu ^g alo— 9:00 P. M.
Arrive Buffalo—*7:00 A. M.	Arrive Cleveland *7:00 A. M.

*Steamer "CITY OF BUFFALO" arrives 7:30 A. M.

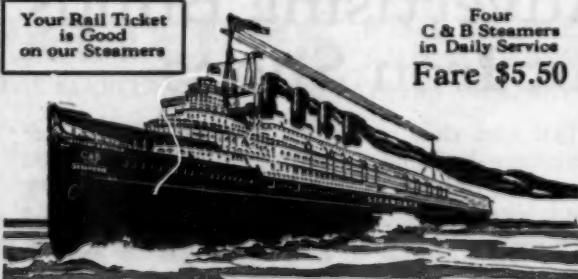
Connections for Niagara Falls, Eastern and Canadian points. Ask your ticket agent or tourist agency for tickets via C & B Line. New Tourist Automobile Rate \$7.50 and up.

Send for free sectional puzzle chart of the Great Ship "SEEANDBEE" and 32-page booklet.

The Cleveland and Buffalo Transit Co.
Cleveland, Ohio

Your Rail Ticket
is Good
on our Steamers

Four
C & B Steamers
in Daily Service
Fare \$5.50



When writing mention AMERICAN ARTISAN—Thank you!

QUAKER

Steel Furnaces

OIL BURNING
COAL BURNING



This specially constructed QUAKER OIL BURNING FURNACE AND QUAKER OIL BURNER solves that problem for you-----

NOW with this COMBINED and SPECIALLY DESIGNED QUAKER STEEL OIL BURNING FURNACE and QUAKER OIL BURNER you can sell guaranteed warm air heating at a price that is less than the cost of a good mechanical oil burner alone.

Notice from the above illustration that this is a COMPLETE heating unit—not merely an oil burner attached.

We want to tell all about this NEW and SUCCESSFUL idea that is making money for hundreds of dealers NOW. Write today.

QUAKER MFG. CO.

215A N. Michigan Ave.

Chicago, Illinois

QUAKER

MFG. CO.

215A N. Mich. Ave.
Chicago, Ill.

Send this
coupon
today

Send literature and dealer proposition
on coal oil furnaces.

Name

Address

City State

MANUFACTURERS OF STEEL FURNACES FOR 30 YEARS



1

You see, pictured above, a sheet of ARMCO Ingot Iron (galvanized). The sheet metal worker using the coping saw is an ARMCO Ingot Iron Shop man. There are thousands of them throughout the country. You will know these shop by the blue and white ARMCO Ingot Iron Shop signs.



2

The sheet metal man will tell you that sixty cents of every dollar you spend for sheet metal work goes for labor. He uses ARMCO Ingot Iron. It will last longer, and the labor charge is the same as for ordinary metal.



3

Because this metal is practically free from the foreign substances that cause ordinary iron and steel to rust, ARMCO Ingot Iron lasts and endures but for indefinitely long periods.



Rain comes true. Rust causes leaks. Leaks cause trouble and expense. The way to avoid this is to use ARMCO Ingot Iron.

ARMCO INGOT IRON

The Purest Iron Made



THE AMERICAN ROLLING MILL CO., MIDDLETOWN OHIO
(Expo) The Armco International Corporation
Middletown, Ohio Cable Address—Armco
Distributors in all principal cities

"Is it made of
ARMCO Ingot Iron?"

Every day, more and more people are
making sure of enduring sheet metal
work by asking this question.

ARMCO'S National Advertising Builds Business for Ingot Iron Shops

"Good sheet metal work starts at the Ingot Iron Shop"—that's the message that ARMCO is telling millions of readers of the Saturday Evening Post, Collier's and Good Housekeeping magazines. Write the Secretary of Ingot Iron Shops now.

Tell him that you want your sign and other business-building aids without delay. It costs you nothing to have an Ingot Iron Shop. And every job you do with ARMCO Ingot Iron means a satisfied customer added to your permanent list.

Write

For Our
Illustrated
Book of
Order Blanks

You'll find this book handy. It explains how and simplifies ordering Stove, Furnace and Boiler repairs from the—

Largest and Most Complete Stock

NORTHWESTERN
STOVE REPAIR CO., CHICAGO

ROBINSON
SMOKE CONSUMER

ELIMINATES { SMOKE
SOOT

EASY to install and it fits any furnace. Easy to operate and economical in price.

A real money maker
—write today for
full information.

Made by the makers of
ROBINSON STEEL FURNACES

THE A. H. ROBINSON COMPANY
CLEVELAND, OHIO
5103 Detroit Ave.



PAT.

BOLTS

WE MANUFACTURE A COMPLETE LINE OF BOLT PRODUCTS, INCLUDING STOVE BOLTS, CARRIAGE BOLTS, MACHINE BOLTS, LAG BOLTS, NUTS, COTTER PINS, ETC. ALSO STOVE RODS, SMALL RIVETS AND HINGE PINS. CATALOG ON REQUEST.

THE KIRK-LATTY CO.
1971 W. 85th St. Cleveland, O.

PATTERNS

FOR STOVES AND HEATERS

FIRST-CLASS
IN WOOD and IRON

VEDDER PATTERN WORKS
ESTABLISHED 1855 TROY, N.Y.

PATTERNS FOR STOVES AND HEATERS

THE CLEVELAND CASTINGS PATTERN COMPANY
CLEVELAND, OHIO

IRON AND WOOD STOVE PATTERNS

QUINCY PATTERN COMPANY
QUINCY, ILLINOIS



Clean Furnaces this
NEW QUICK WAY!

TRY this new method for cleaning furnaces and flues. It's the biggest time and labor saver on the market.

Now, you can clean from five to eight furnaces a day by using the Sturtevant Portable Furnace Cleaner, and do a more thorough cleaning job.

By offering this cleaning service, you not only make a reasonable profit on the cleaning, but you have an excellent chance to supply extra or new parts for the furnaces if any are needed—also an opportunity to sell new furnaces if the old ones are badly worn.

The Sturtevant Portable Furnace Cleaner is simply and ruggedly built, has a powerful suction, is easy to handle and can be operated from an ordinary electric light socket.

Don't delay investigating this new way to clean furnaces. Others are successfully using it. Write us for further information on the Sturtevant Portable Furnace Cleaner. Use the coupon below—NOW!

Sturtevant
PUTS AIR TO WORK

HYDE PARK,
BOSTON, MASS.

Dept. FC7

B. F. Sturtevant Company,
Hyde Park, Boston, Mass.

Without obligation to me, send along further information and price on the Sturtevant Portable Furnace Cleaner.

Name

Address

City State.....

1478

Published to serve
the
Warm Air Furnace,
Sheet Metal, Roofing,
Stove and Hardware
Industries

Founded 1880

American Artisan

and
Hardware Record

Published EVERY SATURDAY at 620 South Michigan Avenue, Chicago

EDITORIAL AND ADVERTISING STAFF

Etta Cohn
J. F. Johnson

G. J. Duerr
Frank McElwain

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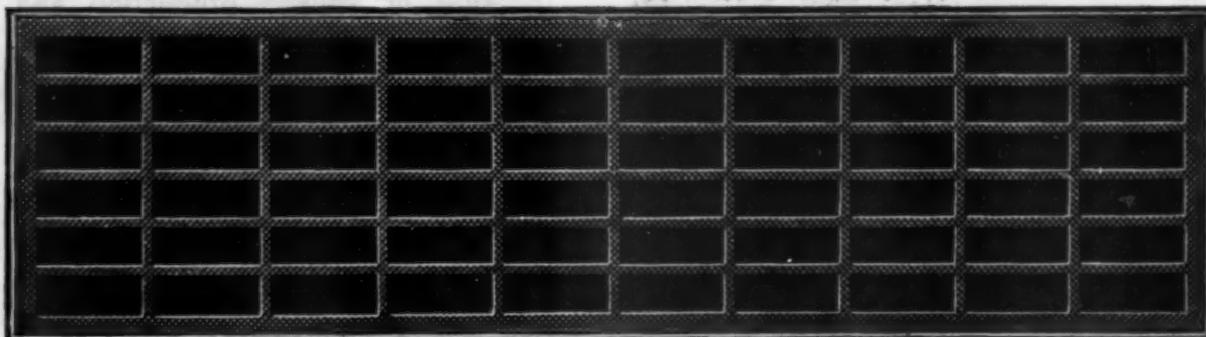
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AN ACHIEVEMENT

An explanatory note regarding service to readers of AMERICAN ARTISAN. This paper is now nearing the completion of a half century of service. For almost fifty years it has catered to the needs of the men in the industries which it represents. At no time during its long and successful career has AMERICAN ARTISAN been in a better position to render complete, adequate service to its readers than it is today. In addition to the matter contained in our regular weekly publication, we maintain Service Departments for the use of our readers. If you have a problem to solve, we courteously invite you to submit it to us for solution. In what better way can we learn of your problems than from you direct?

Cold Facts On T&B STYLE "C" COBBLE Cold Air Face



One . . . The design permits the largest free air opening consistent with strength, safety and appearance.

Two . . . Being of cast iron it has the desirable depth to the cross barrings so obviously missing in stamped steel faces.

Three . . . The rolled edge and narrow rim assure a snug, even, easy setting without recessing.

Four . . . The finish—Tanbo Antique—harmonizes well with all color schemes, therefore is suitable for any room.

Five . . . Wear comes only on the "Tips" of the cobbles—the finish lasts indefinitely.

Six . . . The advantages of T & B Style "C" Cobble Cold Air Face are apparent.

Seven . . . As this style face is not attached in any way, it is easily removed to allow a complete cleaning of the cold air box.

* Style 80 Cobble Register matches style "C" Cobble Cold Air Face. *

TUTTLE & BAILEY MFG CO.

Makers of Registers and Grilles for 80 Years

441 LEXINGTON AVENUE
NEW YORK CITY

36 Portland St., Boston
704 East 18th St., Kansas City

1123-29 W. 37th St., Chicago
Bridgeburg, Ontario, Canada

TUTTLE & BAILEY MFG. CO.
441 Lexington Ave., New York City

Gentlemen: AA

Kindly send full information regarding
Tuttle & Bailey Style "C" Cobble Cold Air
Face—also Style 80 Cobble Register Face.

Name _____

Address _____



**No. 2244
Economy Blue Front Furnace**

*22" Firepot—44" Casing
Radiator 37" x 13"
Weight 1,070 lbs.—Height 49 $\frac{1}{4}$ "
Total Free Air—663"
Over Feed Section—308"
Guaranteed Rating—500"
Cleanout, Ashpit, and Feed Section Thru Front
100% Larger Water Pan
No Bolts, No Cement Joints to Front
45% Air Passage over Feed Section
Firepots 25% Heavier
New Cup Joints—No Rim Checking
Grate Bars 50% Heavier*

ECONOMY

Less fuel - more heat

BLUE FRONT FURNACE

SAVES MONEY

Just as its name implies, the International Economy Blue Front Warm Air Furnace saves money for you and your customers. Reasonably priced, because of volume production and scientific foundry methods, these heaters insure your profits. Their design and construction, backed by a manufacturer with eighty-five years of experience, guarantee their quality and long life.

EASILY OPERATED

Your customers save money through the ease and efficiency with which it is possible to operate these heaters. The narrow front cuts down the amount of heat radiated to the basement.

LARGE AIR CAPACITY

A large casing creates enormous air passing capacity. A large radiator deflects half of this large volume of air toward the center over the hottest castings.

And the attractive blue front preserves the value of each International Economy Furnace.

ACT NOW

Plan to use more Economy Blue Front Furnaces if you want satisfied customers whose thrifty selections of heaters are based on demands for real heating service and fuel economy. Catalog 1752-A will bring you detailed information. We will be glad to send your copy upon request.

INTERNATIONAL HEATER COMPANY

UTICA, N. Y.

NEW YORK CHICAGO CLEVELAND PHILADELPHIA DETROIT NASHUA, N. H.

When writing mention AMERICAN ARTISAN—Thank you!



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No. 12.

Corrugated Iron Roof Replaces Concrete Slab

HERE may still be some sheet metal contractors who are still doubtful of the efficacy of sheet metal to give superior service. There are undoubtedly vast numbers of potential customers yet to be convinced that sheet metal does protect; that sheet metal can render a service of far greater magnitude and import than any of the other materials sheet is rapidly supplanting.

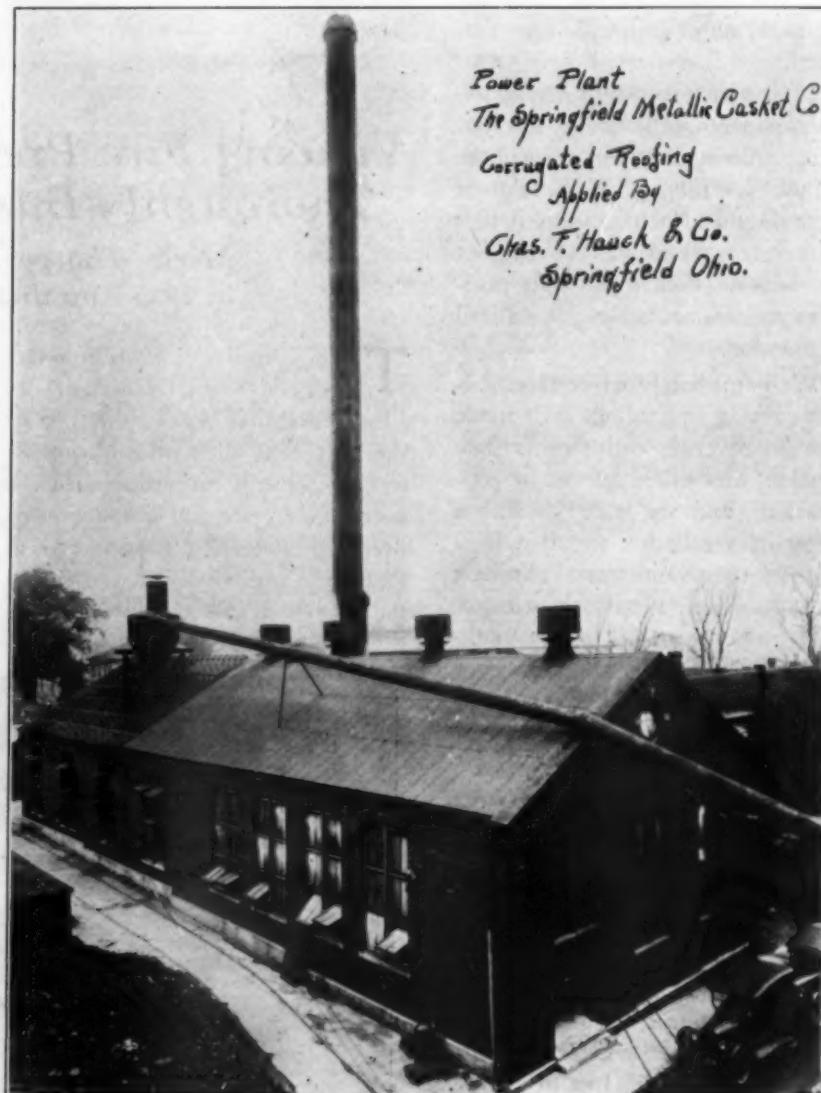
The progressive sheet metal contractors are, however, making great strides in their work of popularizing the ever lasting products. Sheet metal ventilators and roof coverings are every day demonstrating anew their power to be of supreme service.

For instance, let us analyze the steam condensation problem which confronted the Springfield, Ohio, Metallic Casket Company, said to be the largest manufacturers of metallic caskets in the world. This corrective job was handled by Charles F. Hauck & Company, Springfield, Ohio.

How the condensation of steam in the power plant was eliminated is told by Mr. Charles F. Hauck.

"This power plant of the Metallic Casket Company was erected less than 20 years ago. It is 125 feet long and of proportionate width of brick construction, concrete floor and steel roof trusses, with girders about 5 feet on centers.

"Originally the building was roofed with heavy concrete slabs laid on the girders. We had our misgivings of this roof when applied, although we did not do the work. The roof always gave trouble from condensation, mainly because of lack



Section of Roof Not Covered with Corrugated Iron Is Over Boiler Room, and Shows How Roof Looked

of ventilation and partly because of material, no doubt.

"An engineer was called in to prescribe for the condensation and advised a certain type of ventilator of a size we thought not large enough. The company procured ventilators with bases, then called on us to place them in position. We had to remove tiles and cover the remaining space with metal to fit ventilator bases. The engineer did not take into consideration the two girders at the comb, with the result

*Power Plant
The Springfield Metallic Casket Co.
Corrugated Roofing
Applied By
Chas. F. Hauck & Co.
Springfield Ohio.*

that ventilators did not have proper inlet. Condensation continued and the vibration of building caused the tile to shatter and roof began to leak badly.

"To avoid the expense of a new roof, we advised coating the old one with liquid asphalt cement, which the casket company did, and it answered for a while. One day, however, one of the tiles fell in and we were called in to remedy the break in the roof. Our men found the roof in bad condition, but made

temporary repairs and in talking the roof conditions over with the officials, we convinced them of the advisability of putting on a new roof. Suggestions were made to sheath the roof and apply slate or tile and a price was asked. We knew the expense of sheathing, as well as an added insurance rate, and thought of corrugated iron, protected with a layer of asphalt, asbestos paper, asphalt and a layer of water proofing similar to smooth surfaced felt roofing. We could not locate the manufacturers in our files and wrote several jobbers without success. We then wrote your magazine and immediately got desired information.

"We immediately wrote this company asking quotation and made price on covering entire roof. The question was asked us as to condensation, and we stated it was a matter of ventilation and that they needed larger ventilators. As part of the roof over the boilers was not giving much trouble, it was suggested we quote on the part over condenser and engine rooms only and include proper ventilators.

"We again took question up with the manufacturers of the material and they sent a representative, who made some calculations and recommended four 30-inch ventilators.

"We made a quotation on this part of the roof, which is 75 feet long, with ventilators and immediately had a contract signed to proceed with the work and rush with all possible dispatch. Just five weeks from signing of the contract, we had the roof applied.

"The plant engineer is much pleased with the ventilation and says he feels much safer, as he has no fears of the roof falling in on him.

"The metal base of this roofing is 20-gauge iron. The added strength was necessary, as men often have to work over roof because of conveying shavings, etc., to the boilers. Conveyor is above this roof. The only metal we used that was not protected was the stack collar, which we made of 20-gauge galvanized iron and constructed so as to allow for vibration and also ventilate.

"We naturally feel proud of this job, as it is the first of its kind in our city and possibly the best roof ever applied here.

"A few years ago we renewed gutters on this building, using copper. We have since completed several other big jobs for this same company.

"Our shop has had the greatest

rush of business for this season of year that we have ever experienced."

It might be mentioned that architects do not look with favor upon concrete slab roofing, because of the condensation that occurs. Condensation is caused by warm air striking a cold surface such as a concrete slab roof would present to the atmosphere.

Viewing Fire Prevention Week as a Thoroughly Business Proposition

Merle Thorpe Says Fire Waste in 1925 Amounted to \$570,000,000

THIS year the first week in October has been designated as Fire Prevention Week. In view of the fact that sheet metal contractors are chiefly concerned with the ever greater sale and installation of fireproof materials, it would seem that they are vitally interested in the promotion of such movements as

fire prevention as a business proposition.

Mr. Thorpe writes as follows:

Business is proving that self-regulation will cure most of the ills which may creep into our commercial structure. There is no doubt that business in the United States today is on a higher plane than ever



Interior View of Sheet Metal Shop of Handstad Hardware Company, 717-719 Cedar Avenue, Minneapolis, Minnesota.

fire prevention week. They must consider such movements in the light of business propositions.

As an inspiration to those aggressive sheet men who are deeply concerned with the prevention of fire loss, there is quoted hereinafter what Mr. Merle Thorpe, editor of *Nation's Business*, has to say about

before and this in a large measure is due to the wise policy of self-government which has been generally adopted and practiced by the industrial and mercantile leaders of the country. The cry for government control is still heard, but its intensity will diminish in direct proportion to the extent to which busi-

ness can regulate itself. It is, therefore, up to business itself to say whether the specter of government regulation and control shall restrict and strangle private initiative. Obviously, if business cannot administer to its own needs, the government must and will. Every possible loophole which may be seized by the proponents of government regulation should be blocked effectively.

Take the fire waste situation as an example. Losses have been constantly mounting. In 1905 property valued at \$165,000,000 was destroyed, in 1915 the loss was \$172,000,000 and from that time to the present every year has witnessed a larger loss than the preceding one, with the result that the estimate for fire waste in 1925 is \$570,000,000. A national problem of such importance will not long be overlooked by the members of the "There Ought to Be a Law" clan who are constantly on the lookout for new material.

If rising losses continue, does it not seem logical that zealous enthusiasts will advocate legislation which, while ostensibly for the purpose of eliminating fire hazards in business and industry, will in effect restrict and unduly hamper private enterprise? Their argument may be, and it cannot be successfully refuted, that higher fire losses make for increased cost of goods to the consumer. Every dollar's worth of property destroyed by fire is paid for by the public. A paternalistic argument—yes but one which in principle is everlastingly before us in some form.

There are some who still harbor the fallacious notion that the insurance companies bear this loss. They do not seem to realize that the insurers are merely collecting agencies which derive a revenue from the many to reimburse the unfortunate few who sustain losses. It is axiomatic as losses increase, insurance rates must follow. Otherwise the reservoir of funds held by the companies for the purpose of paying claims would dry up.

Fire prevention experts inform us that from one-half to two-thirds

of the total fire waste of the country is due to carelessness and may readily be prevented. The remainder of the loss is caused by fires which may not have been preventable but at least could have been checked if we had but followed and applied the technical standards created as a result of the experience of leading fire prevention and protection engineers throughout the country.

It would seem that the first two steps in a concerted drive on fire waste should be a program of education and a campaign to secure more widespread recognition and adoption of the information available for decreasing fire waste through permanent changes and improvements. Fire Prevention Week, which we are now observing appropriately, comes under the first of these headings. This week is primarily designed for fire prevention education. Newspapers, radio, posters, stickers, addresses, demonstrations—all are being used to inculcate in the minds of the American public the necessity of exercising proper precautions at all times to stave off the ever threatening danger of fire.

But in the final analysis fire wastage will only be controlled when we have made it impossible for fires to spread far beyond their point of origin, and at the same time have provided means to extinguish promptly and effectively those fires which do occur. It takes time to bring about such improvements as would make a city fire safe, but the individual property owner can accomplish it easily. Individual concerns have proved conclusively that heavy fire losses need not be experienced. Impelled chiefly by economic reasons, they have decreed that their businesses should not be interrupted by fires.

Every business man owes it to himself and his community to make his property as free as possible from dangers of fire. Our excessive national fire loss is the aggregate sum of thousands of individual losses, large and small. Every single fire which is prevented or extinguished

before much damage is done will tend to decrease this enormous waste.

Business men's organizations are doing their part. Several hundred chambers of commerce have fire prevention committees and in many cities other local groups are functioning. In addition to safeguarding his own property, the individual business man can render a real community service by co-operating with and assisting his local fire prevention committee. We have the ammunition to reduce fire waste and we have ample man power if it can be utilized. The call for volunteers has been sounded. With an enthusiastic response, we are going to win the war against fire waste.

Cleaving Tee Stem Found Better Than Riveting for Rigidity

For better rigidity, cleaving the tee joint is far more dependable than merely riveting it. Cleaving the joint takes a little more time than a rivet at the apex on each side of the connection, but this method is found to be infinitely safer.

If a rivet method is used on a pipe conveying smoke, the metal around the rivet soon weakens, the rivet gets loose, thus permitting the joint to sever. This does not happen when the cleaving method is used.

The cost of the additional metal when cleaving is not large enough to make any material difference, as scrap from around the shop can be picked up for that purpose.

Cleaving in is a handy method and makes a strong joint, where it is used to connect the first or bottom joint of a smoke stack to a flat metal plate. At times the pitch of the roof will be found to be considerable, especially when wood shingles cover the house. In such cases it will be found that the bottom of the pipe will have to be cut at an acute angle.

This necessity will make it difficult to get between the pipe and the plate at the throat to secure it in any manner from the top. By cleaving this joint into the metal plate or apron it can be made absolutely secure and is accomplished.

If the pipe has been cut true at the bottom to meet the angle required, it can be set upon the plate and the hole outlined. Then cut out the line described to receive the joint. An eighth inch or wider hem is formed on the outer side of the

angled bottom. Material can be riveted around the inside of this flanged edge, trimmed to width wanted and snipped into the hem when the pipe is turned up side down. The plate can be slipped down onto the hem, and then the

snipped prongs can be hammered down smooth. It may be soldered in the throat if used as a roof plate or two or more prongs riveted if used otherwise. Riveting is not absolutely necessary, except to prevent a leak on the roof.

Metal Trim Installation Lucrative Field for Contractor

Showing Details of Installing Metal Trim Job in St. Louis, Missouri

By O. W. KOTHE, Principal St. Louis Technical Institute, St. Louis

ONE hundred and twenty-five million dollars transferred into the new Federal Reserve Bank—that is what the public hears about the huge new banking institution at Fourth, Locust and Third Streets, St. Louis.

But for sheet metal tradesmen there is a considerable story connected, as well, no doubt, for numerous other tradesmen. But for sheet metal men the outstanding types of work are metal trim installation, indirect heating and ventilating, pneumatic air system and restaurant equipment.

It is the metal trim that we shall cover here, which consists mainly of metal partitions for cages, metal desks, metal lockers, storage bins, rails, etc. The material was furnished by the General Fire Proofing Company of Youngstown, Ohio, and the installation on the job was taken care of by the National Metal Products Company, G. F. Carraher, proprietor, 3937 Olive Street, St. Louis, Missouri, while the job was very ably superintended by Edward Symour, Superintendent of works.

A Few of the Outstanding Figures

About fifteen carloads of metal trim were installed, requiring an average of about thirty-five journeymen mechanics for some four months' time to do the work. Erection costs amount to some \$22,000, while the job itself is said to run considerably over a quarter of a million dollars.

Upon inspection of a completed

job of this kind, the viewer is struck with the simplicity of the work, which makes a very beautiful appearance, so that most men would say this is indeed simple stuff, no skill required in this erection. Well, maybe not, but it is comparatively new to most of our tradesmen and so men who work on it have a great privilege and naturally they feel this requires the apex of mechanical skill and trade knowledge. But let us see how this work is arrived at.

Naturally the floor plans come first. Consultations produce the partition lines for the hundreds of cages, as well as desk room, locker space, storage bins, etc., etc. Next the manufacturer of hollow metal trim is brought on the scene, and either a certain make is selected or the work is awarded the successful bidder. Well, now this successful manufacturer must take the architect's plans of roughing in measurements and work out typical details for each partition. Hence every post, door and panel has its definite measurements.

To these measurements the factory gets out all the work so as to fit in between measurements of the walls, halls, piers, etc., etc. The posts are made out of 14-gauge steel, no doubt; are so drawn from a round tube. All cross bars are light channel irons anchored to the posts by lugs, and all window and door strips are fitted in place by drilling and taping for brass screws. The top panel is filled with high

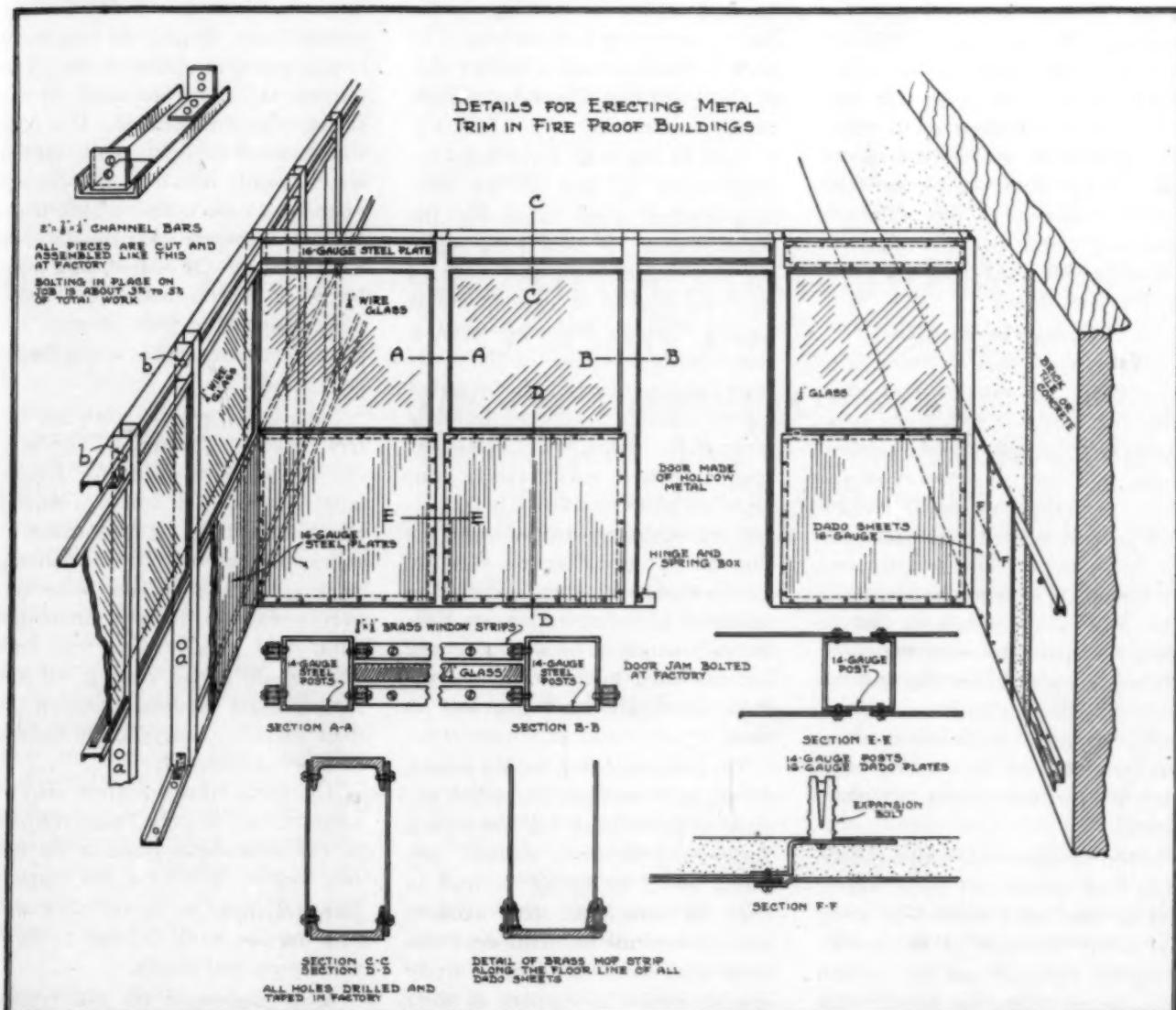
polished wired glass, while the lower panel is covered with 16-gauge steel sheets, all bored and tapped for screws to fit through the sheets into the posts.

So at the factory a greater part of the work is set up and then dismantled again. All work is then enameled with a dark olive green enamel, which is either well dried or baked. In this way every piece is cut to its right length, and where these wall sheets must pass around square columns, the sheets are bent at the factory before enameling, so on the job there is no cutting or fitting to do to speak of. This work is then well packed and sent to the job for installation, with plans and measurements and numbers for every part.

Preparing for the Job

Now comes the most difficult work of all—that of preparing the job. Men who are used to jobs under construction will know how unreliable everything is. Walls, sides wider than others, halls are out of line, floors raise and dip until it seems there is nothing nowhere from which reliable measurements can be taken or made. In addition to this the floors are often filled with timber scaffolding and other junk so that it is quite impossible to get anywhere or arrive at anything without considerable work in first blazing the trail.

This was the condition that Superintendent Edward Symour and George Richter, his assistant, found



Details of Metal Trim Installation

when called on to lay out the work for the plasterers to make their finished wall lines to. The floors were covered with sawdust and water soaked so that the feet were often ankle deep in mush, while scaffolds obstructed any convenient measurements that may have been taken. It would be a long story to tell, but with chalk lines, plumb bobs, levels, squares, etc., the measurements from the blue prints were transferred to the walls, piers, hallways, etc.

Observe, here a service was rendered by sheet metal men that ordinarily belongs to the engineering staff of the general contractor—that of laying out partitions, walls, halls, plaster lines, etc. But since the sheet metal trim was all fabricated at the factory, it, therefore, remained

for the superintendent and his assistant to mark off definite measurements in which the trim was to fit. Hence it involved the work from the ground up and establishing finishing lines for the plasterers to work to. In some places walls and piers had to be dressed down a bit and in other places as much as from $1\frac{1}{2}$ to 3 inches of plaster had to be filled in, in order to build out the hollow spaces and make a snug fit for the trim work to butt against.

No one will dispute that outside of the architect's designing and the designing at the factory, this preparing the job for receiving the trim is the real engineering feat of the entire job. In fact, it is a relatively easy thing to work on paper exclusively, but where a person must work from very precise paper

measurements and apply them to uncertain job measurements that involves considerable practical judgment and a knowledge of the work. As these measurements were established, points were marked to enable running the anchor strips. These are shown along the wall of our drawing and also by the detail F-F. The outside surface is the one to go by, and these strips are built against the walls, piers, etc., where brick, tile or concrete is used.

The face of these Z strips must be perfectly straight and if the wall runs crooked, the hollows must be built out while the hills must be chipped off. Thus the top as well as the bottom and the vertical cross seam strips must be perfectly even. These strips are made out of galvanized iron of about 20 to 16-

gauge and bent to a Z shape. On this job there are some 5,000 feet of these flat wall sheets called "dado" sheets, and so an idea may be had at establishing a floor line for all of it, as well as the plaster line. When these strips were securely anchored to the wall, the plasterers filled in the voids with plaster, which gives a solid backing for the wall sheets.

Erecting the Materials

Naturally the first condition is to start right, and this is best done with the "dado" sheet from some corner and line up the sheets, first using only four or six screws per sheet. Here an automatic electric drill is used so that the drilling of the hole into the anchor strip and the tapping is done in one operation. The drill is reversible so that to press forward it turns to the right, while pulling backward the drill tap turns to the left and so releases itself. Some 25 or more of these tools were loaned the erecting company by the metal trim manufacturer.

When an entire side wall has been lined with sheets and all is square and in line, other men come along and fill in the rest of the screws along the top edge and the vertical cross seams. Along the bottom edge a two-inch strip of brass, having its edges hemmed, is screwed to the base plate by staggering the screws. But this is about the last operation on the job, as this is a mop strip and is to protect the enameled trim.

In setting partitions it is also natural to start with some wall and work outward, as our sketch shows. Measurements must, of course, be well placed, but none of the partitions are anchored to the wall or floor until the entire row is set up. This allows for slight adjustments that may be necessary to shift a partition a fraction of an inch one way or another. However, in setting up the cross channel, bars are bolted to the posts by means of screws. After this one side of the lower "dado" sheets are screwed in place to be sure the posts are perfectly square. If the floor should form slight hollows or high spots, the work must

be lined, either by building up the floor or trimming it down a bit. The floor is finished with a rubber slab or sheet and this allows for adjustments if necessary.

Each of the posts have holes located as at "a" and "b" for running electric wires along for the signal system. So well is this wired that every cage door makes a record on being opened or closed, and if anyone tampers with the locks it also records it. Some of the doors have three combination locks and it is truly amazing to observe the many precautions taken to safeguard against possible tricky folks. But after all posts and cross bar channels are set for a series of cages the base sheets are removed and the bottom channel bars are anchored to the floor with two expansion bolts for each panel. The wall posts are also anchored to the walls and the dado sheets are again screwed in place.

The structural steel workers cover the top with wire grating, which are made to set in place and are bolted. Because of the cross channel bars which are 2 by $\frac{3}{8}$ by $\frac{1}{4}$ inch in size, the structural steel workers laid claim to the installation of this metal trim and even went on strike several weeks in support of their contention. But the fastening of these channel bars in place is only about 3 to 5 per cent of the entire work.

Doors are made of hollow metal and have a special hinge in a box set in the floor, which acts as the spring and hinge. Some of the vault doors are equipped with chain hinges which are a very novel arrangement. Otherwise as the door posts are squarely placed, it is not much of a trick to hang the doors. The glaziers set the glass in the upper panel of the partition. Those partitions in the halls, etc., that are exposed are equipped with bullet proof glass. The setting is very simple, since all that is needed is to remove the strip, put a layer of putting or felt in place to prevent friction between the glass and metal, and screw the strip in place again.

Our several details on the draw-

ing shows how this is done, all of which is very simple. In fact, there is no cutting or fitting to do. But the way all sizes are made in the factory they are installed. It is only where electric light wall button boxes slightly interfere with the top of the dado sheets that a little trimming is necessary, and this is done with a chisel. Of course, care must be taken not to mar the enamel, which is polished with oil when the job is done and it gives a very beautiful finish.

Such is the general work for fifteen carloads of materials. The lockers, storage bins, stalls for trucks, hand rails, etc., all follow a similar procedure. It is the assembling of fabricated material. In the running of long rows of lockers some unevenness of the floor is often met with, and this makes the lines crooked. But by cutting off the bottom edges or dressing down the floor surface a fraction, the desired results are obtained.

The metal trim is a great field of industry and is only being realized by the sheet metal trade in the last few years. Formerly the carpenters laid claim to it, and they still do; but the work belongs to sheet metal pure and simple.

Most tradesmen do not realize that sheet metal embodies several engineering fields, and still the masses call themselves "tinnings." When they ask for a job, they call themselves a tinner and when they speak in public they call themselves tinnings. And the greatest offenders of all who belittle their great craft are the employers at large. Most of them refuse to consider any new work of a big nature, and when they advertise their business they exploit the words tinner, the trade of 30 years ago. If they advertise for a man, it is tinter again, and in many association meetings the only word one hears is tinner when they speak of their profession.

Yes! Sheet metal is made up of several engineering professions and the installation of metal trim is but another that requires engineering ability for its successful management. Sheet metal requires far more

geometrical knowledge and a broader understanding of construction than many another type of engineer, who unfurls his title before the public with such prominence. The "private" of the army is much like the "private" of the mechanic—he is all he will ever be.

After the newness of metal trim is wore off among our tradesmen, it will be found a far more delightful piece of work that is easier executed—than it takes to hang gutters, or scrape tin roofs or even clean old furnaces. Indeed, here it is not even necessary to know how to solder—but it is very necessary that he has a keen perception of a line—in other words that he can see straight. There is nothing that aids this perception more than a good training in sheet metal design and pattern drafting. That is the beginning of Engineering and men without this high valued ability are just privates—even though they believe in their own heart that they are world beaters; but that does not make them so to others who know and require engineering services. For instance, Tinners have not got it, and now let us wonder how many this includes?

Etie Sheet Metal Works, Houston, Texas, Now Located in New Home

The Etie Sheet Metal Works of Houston, Texas, moved into their new home at 1509 Washington Avenue recently, realizing a dream of years agone. Just 22 years ago Mr. Etie began business in the wash-house of his mother's back yard. From this small start one of the most progressive sheet metal firms in the southwest has grown.

"It was my dream when I first went into business that some day I would have the biggest firm of its kind in the city," Mr. Etie stated in commenting on his organization, "and now I am pleased to say that through the steady growth of the business this dream is being realized."

The new home of the Etie Sheet Metal Works is of two-story construction, of hollow tile, and occu-

pies a space 50x100 feet facing on Washington Avenue. It is directly across from the location where the business has been located during the past few years.

The ground floor front is used for the office, with a workroom and factory in the rear. The upper floor will be a storeroom.

Mr. Etie has been a resident of Houston for the past 29 years and has spent 22 years of that time in

his present business. In 1911, after outgrowing two previous locations, the company moved to 1510 Washington Avenue, across from the new home.

In addition to handling sheet metal work the company makes a specialty of furnaces. A popular line of reliable furnaces, with timely displays, has developed a very satisfactory volume of business, so officials say.

Illinois Auxiliary Offers \$100 for Four Best Sheet Metal Window Displays

Photographs to Be Judged and Winners Designated at Next Illinois Convention

EVERY sheet metal contractor who is a member of a state or local sheet metal contractors' organization knows the avowed purpose of the men in forming such an association. But as to the purposes of the Travelers' Auxiliary which has been formed in nearly every instance where the state boasts an association, that is another matter.

These auxiliaries are made up of manufacturers' and jobbers' salesmen who have taken it upon themselves to assist the parent organization in increasing membership and other matters for the upbuilding of the organization and the industry.

Each and every one of these auxiliaries is doing all in its power to assist its parent organization.

Now to particularize. The Board of Directors of the Travelers' Auxiliary of the Illinois Sheet Metal Contractors' Association recently hit upon a new method of creating interest in the industry's betterment. They have determined to hold a window display competition, in order to stimulate an interest in better sheet metal window displays. In order to build up an interest in the contest, the Travelers' Auxiliary has voted \$100.00 to be divided into four cash prizes.

Here are the rules which must be observed by contestants in order to be eligible for the prizes:

Four prizes are to be awarded as follows: First prize, \$50.00; second

prize, \$25.00; third prize, \$15.00; fourth prize, \$10.00.

Contestants may enter as many photographs and descriptions as they desire. Each photograph must be accompanied by descriptions of how the window displays were arranged and the materials used. The description is important and must be adequate. These photographs and descriptions must reach the office of the Auxiliary Secretary, Etta Cohn, 620 South Michigan Avenue, Chicago, Illinois, not later than one week before the opening the 1927 Illinois Convention.

Each photograph and description must be signed by a fictitious name or device and the same name or device must be put in a sealed envelope containing the real name and address of the contestant.

This sealed envelope must be enclosed with the photograph. The photographs and descriptions will be judged at the convention and announcement of the prize winners will also be made at that time.

This competition is open to any and all sheet metal contractors, warm air furnace installers or roofing contractors.

The Travelers Auxiliary reserve the right to submit for publication in the various trade papers any or all of the photographs and descriptions submitted.

Any contractor who is desirous of entering photographs in the contest

may ask the salesmen who call on him for their help in trimming his window. They will be glad to give suggestions and help develop ideas.

U. T. Hungerford Brass and Copper Moves Philadelphia Warehouse

The Philadelphia warehouse of the U. T. Hungerford Brass & Copper Company has been removed to 46 North Sixth, corner Filbert Street, Philadelphia, Pennsylvania, where, with an increased stock and better facilities for giving the maximum of service, the company will be glad to meet its customers in the future.

Illinois Travelers' Auxiliary Officers Hold Meeting at Chicago

On Monday, September 13th, officers and members of the Publicity Board of the Travelers' Auxiliary to the Illinois Sheet Metal Contractors' Association held a meeting in the offices of AMERICAN ARTISAN, 620 South Michigan Avenue.

Those present were President H. R. Harrison, Directors P. M. Lorenz and William P. Laffin, and E. C. Carter and J. F. Johnson of the Publicity Committee.

The secretary's minutes of the last meeting and the report of work accomplished since that time were read by President Harrison in the absence of the secretary. The report showed that the membership campaign conducted by the secretary's office resulted in bringing in twenty-five new members.

A rough printers' proof of the roster was approved by the board of directors and these attractive wall cards will be mailed to the contractors at an early date.

The roster contains names of firms and salesmen members of the Auxiliary and the terms of the Cash Prize Window Display Competition, being conducted by the Auxiliary. The terms of the contest are given on another page of this issue.

The trade-marks of the National Warm Air Heating and Ventilating Association and the National Association of Sheet Metal Contractors

also appear on the roster.

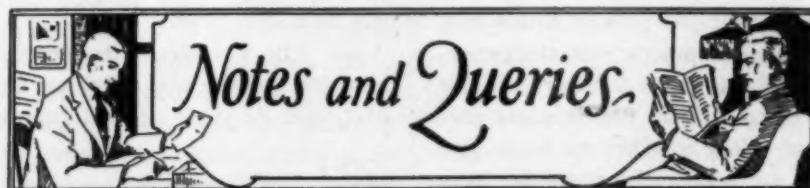
It is planned to make the meeting of the Auxiliary at the Ottawa convention a business and inspirational affair.

The suggestion that a speaker who could deliver a short talk of benefit

to salesmen be obtained was offered by Mr. Lorenz and approved by those present.

Another meeting will be held before Thanksgiving.

Travelers are asked to watch for the rosters.



Address of Miles Furnace Fan Company.

From Michael Heating Company, 414-424 West Colfax Avenue, Denver, Colorado.

Please advise us where the Miles Furnace Fan Company is located.

Ans.—It is now known as The Warm Air Furnace Fan Company, and is located at 6511 Cedar Avenue, Cleveland, Ohio.

Horseradish Grinders.

From D. E. Hubbell, R. R. No. 2, Ypsilanti, Michigan.

Can you tell us who makes horseradish grinders? I want a power grinder such as the electric drive.

Ans.—Kelso and Company, 557 Quincy Street, Chicago, Illinois, and Schroeter Brothers Company, St. Louis, Missouri.

"Hercules" Boilers.

From Brand and Bohrman, 226 South Seventh Street, Louisville, Kentucky.

Please advise us who makes the "Hercules" boilers.

Ans.—This is the brand of Sears, Roebuck and Company, Homan and Arthington Streets, Chicago, Illinois.

Horseradish Bottles.

From D. E. Hubbell, R. R. No. 2, Ypsilanti, Michigan.

Kindly advise me who makes horseradish bottles.

Ans.—Adams Brothers and Company, 136 West Lake Street, and The Owens Bottle Company, 38 South Dearborn Street; both of Chicago, Illinois.

Dairy Stock Tin Plate.

From R. C. Sermon and Company, 5911 Elinor Street, Duluth, Minnesota.

Can you inform us where we can buy dairy stock tin plate imported from Wales, size 22 gauge, 36"x 96"; also who sells this same class of material, domestic make?

Ans.—N. and G. Taylor Company, Philadelphia, Pennsylvania; Merchant and Evans Company, Philadelphia, Pennsylvania, and The J. M. and L. A. Osborn Company, Cleveland, Ohio.

Repairs for "Carbon Banner" Stove.
From Joseph Jones, 334 High Avenue, Sharon, Pennsylvania.

Where can I get repair parts for the "Carbon Banner" stove, formerly made by Baxter Stove Company of Mansfield, Ohio? Is the stove being made now and by whom?

Ans.—Repair parts may be had from Northwestern Stove Repair Company, 654 West Roosevelt Road, Chicago, and Niehaus Stove and Furnace Repair Company, Cleveland, Ohio. This stove is no longer being manufactured.

"Royal" Furnace.
From West Side Hardware Company, Evanston, Illinois.

Who makes the "Royal" furnaces?

Ans.—Hart and Crouse Company, Utica, New York, and 1446 South Canal Street, Chicago.

Sheet Metal Course in Chicago High Schools.

From L. E. Ruddell, 1444 Strauss Building, Chicago, Illinois.

Is there a high school that has a night class in sheet metal work?

Ans.—Yes; Lane Technical High School, Division and Sedgwick Streets, Chicago, Illinois.

"Fyre-Syde" Fireplace Heater.
From Frank E. Wilk, P. O. Box 402, Syracuse, Nebraska.

We should like to know who makes the "Fyre-Syde" fireplace heater.

Ans.—Snow Manufacturing Company, 2437 East 24th Street, Los Angeles, California.

The Editor's Page

Fire Prevention Publicity an Ally of Contractors

DOES the advent of fire prevention week—October 3 to 9—offer any possibilities for the increased sale of sheet metal? Yes! decidedly.

Fire, when unconfined, can become a terrible destructive force. History is replete with instances of great losses, both in life and property, caused by fires whose origin at least could have been prevented had proper precautions against fire been exercised when the ill-fated structures were erected.

One of the primary objects and duties of a sheet metal contractor is to build for permanence. One of his privileges is to get a profit therefor. If he does not get the profit, he is a fool.

Regardless of whether or not the sheet metal contractor receives aid in his work from outside agencies, he is in duty bound to build for permanence. But it often happens that other agencies do help him. For instance, fire prevention week, which will be held from October 3 to 9 this year, will generate a vast force which can be readily harnessed by the sheet metal industry as a whole and by the individual in his own locality.

The whole affair is an advertising proposition pure and simple. The metropolitan daily papers and the local sheets will make a great deal of comment on the need for fire prevention. Talks over the radio will tend to emphasize the destructive force of fire unconfined. The great fires of history will be brought to the fore and the magnitude of the property loss will be presented to the public in terms of dollars and cents. In short, great emphasis will be placed on the need for greater fire prevention. The public mind is brought to a very receptive state by this invisible but powerful force—the daily press. But no good can result unless action of the right kind is produced.

Now, the contractor needs only to go one step further and show his public how the desired end can be attained by indicating to them where the fire-proofing materials and services can be procured.

The sheet metal contractor or the warm air furnace installer who does not take advantage of this powerful ally, who does not make the most of such a wonderful opportunity, is not alive to his possibilities. In order to reap the full benefit of this publicity the contractor needs only to add the final chapter of this grawsome story which has aroused the public interest by showing how such disasters can be prevented in the future with a greater use of sheet metal. This is the golden key that will unlock the pocketbooks of home owners. The public is willing to spend when it is shown them that they will benefit directly. The contractor must do the showing.

Preparing the Organization for the Fall Rush

THE passing of Labor Day is officially conceded to mark the end of summer. Vacations are by that date pretty much a matter of history and the full force is back on the job, refreshed and ready to get back into the routine of work.

A little later on the fall breezes will begin to rustle the vari-colored leaves, and then if ever is the natural stage setting propitious for a rush of business for the sheet metal contractor and warm air furnace installer.

Some of these men have already thought about the increased business and have prepared for it. Others, no doubt, are rapidly completing their preparations, but there are always some who procrastinate. It is to this latter group that this message is directed.

Now, if ever, you should be able to realize a handsome return in added business from telephone calls, circular letters and appropriate advertising in local newspapers.

By no means neglect the house-to-house canvass—the doorbell ringing habit. Many a successful warm air furnace installer has experienced the efficacy of house-to-house canvassing to pull business. They know that there is no substitute for personal contact, and there is no better method of getting that personal contact than by meeting the prospective customer where you can explain the details of the job.

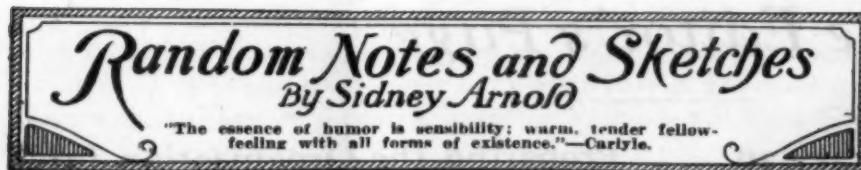
The warm air furnace installer who does not include the house-to-house canvass among his sales efforts is not taking full advantage of all of his opportunities to get business.

The greater the number of people to whom you can personally tell your story, the greater will be the percentage of business that you will capture during the year.

Prepare now for the rush of fall business. An order, obtained over the telephone, to clean and inspect the furnace gives the contractor an excellent opportunity to get repair business. It will give him a chance to show what real service is. Good service is the best advertisement any business could possibly get.

Increased business must be worked for. It will not come into your plant of its own accord, at least not until you have spent a great deal of time and energy cultivating the ground where you expect it to grow.

The man who meets the public in the way that the sheet metal contractors or warm air furnace installers do cannot place all of his reliance on the printed word advertising in any of its numerous forms. All of these combined, or any one of them individually, are excellent adjuncts to business-getting. They are all necessary to the conduct of business, but they cannot take the place of personal contact, and there is only one way to get that.



Every Saturday for quite a few years I have enjoyed a visit with my friend, I. B. Allen, who for many years conducted a sheet metal contracting business down in Muncie, Indiana.

For some months past I have missed the pleasure of a Saturday afternoon chat and smoke with my friend, and the following note explains his pardonable neglect:

From Lock Box 2781, St. Petersburg, Fla.

To Sidney Arnold.

Dear Sir and What:

Am sorry I cannot make a personal call. But I am asking you to just wrap up about three of the latest ones off the press and mail them to me. Find postage enclosed. Will tell you all about it some time later. All is well on the Gulf and with the boy on the Ohio River. If you will comply with the above request, you will soon receive a Robert Burns.

Thanking you, beg to remain,
Yours very truly,

I. B. ALLEN.

* * *

C. R. Keeler, of the Hart & Crouse Company, speeded out across the street with his Ford and struck the street car squarely amidships. The street car conductor got off to investigate and collect evidence for his official report.

"What's the matter with you?" the conductor asked C. R. "Don't you know you can't run under my car with your top up?"

* * *

H. R. Harrison, who looks after the interests of the Rudy Furnace Company in the Chicago district, was of the opinion, until quite recently, that he was the master of his own castle. But H. R.'s disillusionment came all too suddenly. It all came about in this way. His patience had been sorely tried during that day. At the end of the working day he pulled down his roll-top desk, thinking to himself as

he left the office: "Well, I'll hurry home and get a good dinner. Then I will do a little reading and get to bed early and enjoy a good night's rest."

He went home, had a good dinner, after which he put on his smoking jacket and was just about to pull on his carpet slippers when his wife entered the room and said, "Why, H. R., don't you know that we have a theatre engagement with the Browns this evening?" H. R. said, sighing inwardly but outwardly smiling, "I am very sorry, dear. I quite forgot about it. I will run upstairs and get dressed immediately."

Three hours later he was congratulating himself that it was about over and he would soon be able to gratify at least part of his early-to-bed ambition when his wife suddenly whispered: 'Dear, the last time we went to the theatre with the Browns they invited us to supper afterwards. You won't fail to reciprocate this time, will you?"

Whereupon H. R. said smilingly: "Oh, I quite forgot, my dear. Certainly we shall invite them to supper with us." Very gracious to his friends and very sweet and tender to his wife during the meal. About half-past one in the morning they said good-bye and he secured a taxi-cab and proceeded home with his wife. Sleet had begun to fall rather heavily. When they reached their residence, H. R. jumped out politely, and as he helped his wife carefully out of the vehicle he said, oh, so tenderly, "Now be careful, dear, for it is very slippery and you might fall and break your d—d dear neck!"

* * *

On one of the recent visits of V. H. Parks, Kansas City, Missouri, to Chicago he had a friendly game of cards. When he returned home he had a great deal to say about the ethics of card playing as

practiced in Chicago. Here's what he said:

"I was sitting in at a little poker game with a bunch of doctors," he said, "when one of them parked a cud of chewing tobacco in the middle of the table. Soon after that another did likewise. I was getting pretty disgusted about this time and when the third doctor added his cud to the lot I shouted out: 'Say, what's the big idea?'"

"Pardner," said one of the doctors, "you don't think we're goin' to take any chances by turnin' our heads, do you?"

* * *

Harry Beaman, who guides the destinies of the Indiana Warm Air Heating and Ventilating Association and who also sells Hall-Neal furnaces, enjoyed a humorous experience at a recent election held in an Indiana city.

Harry happened to be at a polling place when a colored woman presented herself for the purpose of voting. It was her first voting experience. She gave her name, her address, and her age (strange to say) and then the clerk of registration asked: "What party do you affiliate with?"

The woman's eyes fairly popped out of her head. "Does I have to answer dat question?" she demanded.

When told that such was the law, the colored mammy said, much to the surprise of the clerk: "Den you just scratch my name offen de books. Ef I got to tell his name I don't want to vote. Why, he ain't got his divorce yet." Out she stalked.

* * *

M. J. Makin, of International Heater Company, Chicago branch, wrote the following note to his dear one:

"Sweetness, apple of my eye, I would do anything for you; swim the Atlantic, go through fire and hell for you, and would face the most terrible storm or hurricane for your sake."

"And, by the way, I will come over tonight if it doesn't rain too hard."

Are Warm Air Furnace Men Completely Sold on Their Product?

Can These Men Wholeheartedly Subscribe to the Slogan, "Warm Air Heat Is Best for the Home"

By R. W. MENK, Heating Systems & Supply Company

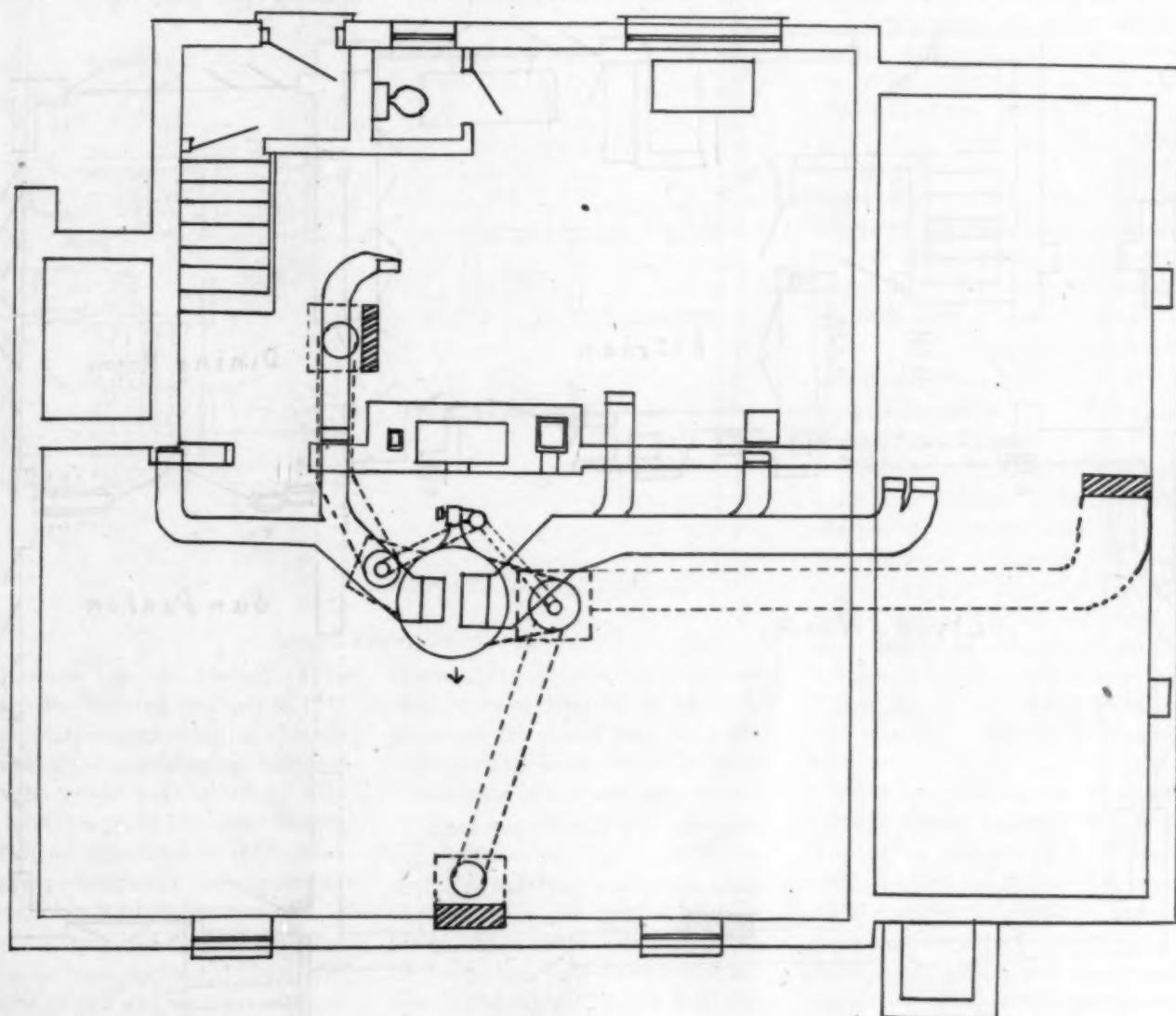
HOW far has the warm air heating industry traveled along the road of progress during the past few years? What future is there ahead for that industry? These are questions which are conjured up in my mind when certain experiences are brought to my attention. The first of these questions I can readily answer by referring to the records of the industry. The second gives me a great deal of concern.

There are more men in the warm

air heating industry today than there have ever been before. This condition leads me to the belief that there are less hot air merchants—people who thought more of the sale than they did of the results the furnace would give—than there formerly were.

Nevertheless, there is still much evidence of the fact that there are hundreds of men who are making, selling or installing furnaces who are not completely sold on the idea

that the warm air heating system is the best system for the home. There is still much evidence that a lack of knowledge of what a warm air furnace really can do exists. It is these lacks and deficiencies on the part of those who should know that are giving me much concern. It is my estimation that this condition should be corrected before we in the warm air heating industry can justly tie up to the slogan that warm air heating is the best for the home.



Basement Plan of Warm Air Heating Layout.

We cannot stop at the average home, for if warm air furnace heating is limited to the average homes, then a good share of the past efforts have been a waste of time. I confidently believe that there are no limits to the capabilities of a warm air furnace, insofar as the dwelling or residence is concerned. We can heat the larger than average homes.

At least a dozen instances have come to our office during the last month of jobs in residence warm air heating that have been turned down by furnace manufacturers. In each and every one of these cases the excuse was that the house could not be satisfactorily heated with warm air.

Plans for the heating of three fine residences were turned down by one furnace manufacturer. Each and every one of these jobs came

through architects' offices. The manufacturer referred to is a maker of high-grade furnaces and has an engineering department of some size. The plans for these jobs are in our office and can be seen by any one who wishes to call and look them over. This is an unfortunate situation for the warm air furnace industry.

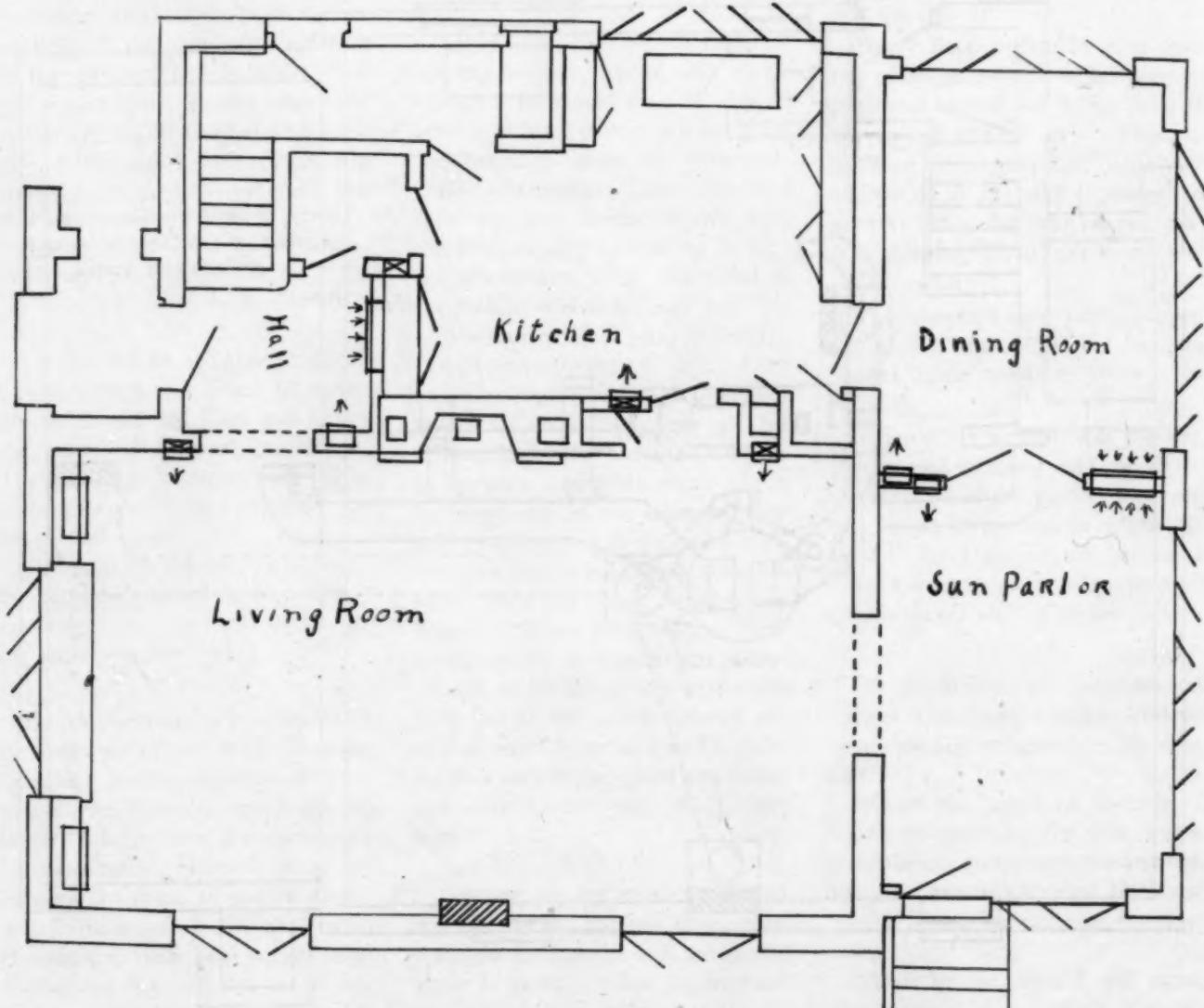
All three jobs have been accepted by our office, but only in one instance will the make of furnace originally specified be used; the other two will have other makes handled by dealers doing the work.

It is most too long a story to cover all of the conditions, but if AMERICAN ARTISAN desires to illustrate them at some future time, or the readers are sufficiently interested to ask for them, we will gladly submit the layouts and point out the

features upon which they were turned down. The aim in making these statements is not to injure any one or to indicate that we are any smarter than others, but to substantiate the foregoing statements.

If warm air heating is to reach the heights that many hope it will, then its limits surely should not be less than the finest homes, in which warm air heating can make its best friends.

I often wonder how many furnace people take the time to go over some of the old books, trade journals and association transactions. It is one of the ways in which one may judge progress. On a recent evening I went to the book shelf and took out some of the journals published in 1916, '17 and '18. It was long after midnight when I reluctantly put them back. Those



Warm Air Heating Layout Made by Heating System & Supply Co.

hours spent in reviewing the statements made in years past by people who had visualized what would happen (if certain conditions were brought about) are interesting reading. For instance, I came upon some showing that some men thought in 1916 that it was beyond possibility to build a house for research work. Some even condemned the idea.

Then, too, the idea of having a code! You can realize what it has required in time and effort to bring that instrument to its present state of perfection. Can you imagine what its influence will mean in the future?

I urge all who wish to gauge the progress that has been made, who wish to add enthusiasm and inspiration to the warm air heating business, who are desirous of furthering the interests of warm air heating, to go back over some of the past records and see what some of the old-timers have done to put warm air heating where it is today. It is our duty to carry on just as they carried on.

How easy it is to take things for granted. How easy it is for some to assume an air of confidence in their ability to do certain things, oftentimes not thinking what it cost those ahead of them to pave the way for

ing. In fact, some of the statements were so ridiculous that I am sure if his employer knew he was passing out such bunk, his immediate resignation would be called for. The point in question is, Mr. Furnace Manufacturer and Mr. Dealer, do you know what your salesmen are saying? This, again, is not to reflect upon good men or men of experience, but rather the reverse, and a little investigation may reveal some surprises and possibly avoid embarrassment in the future.

Warm air heating will only get as far as those in the industry are interested in developing it. If the results from a warm air furnace are to be those ideal results that are supposed to accrue, then the limit of its application should be nothing short of the maximum of its capacity.

I often envy and must take off my hat to the Rotarian, who lives up to the standard of Rotary—He profits most who serves best!

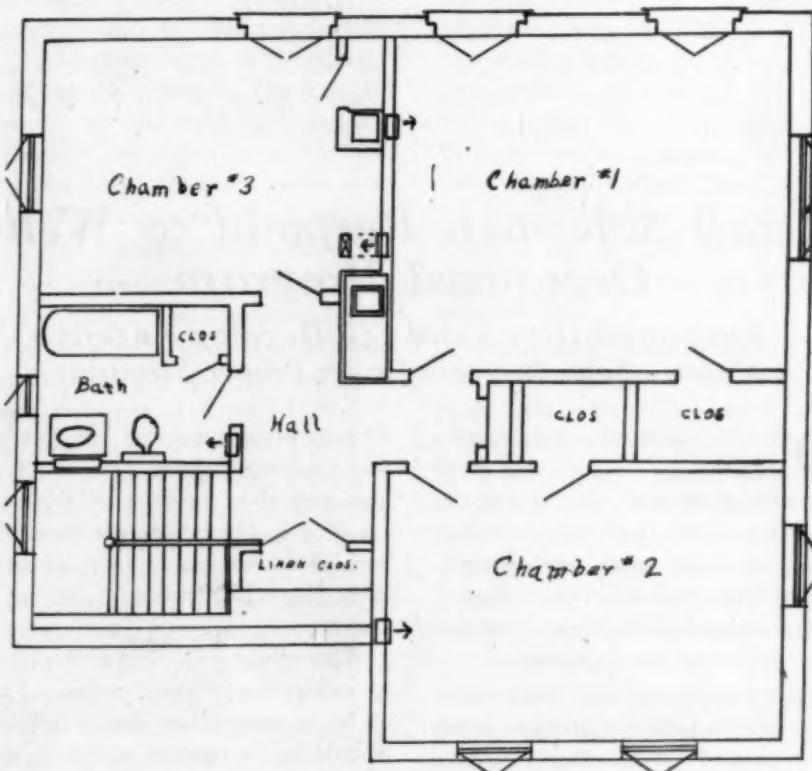
Editor's Comment—Mr. Menk is not a Rotarian, but he says he hopes to be one some day. He also says there are some Rotarians in the furnace industry who, in his estimation, are doing and have been doing their best.

Honeywell Makes Notable Shipment Record from Wabash

Honeywell Heating Specialties Company, Wabash, Indiana, is the subject of an interesting item in the *American Messenger*, a house organ, issued by the American Express Company, telling the story of how widely by express alone the company's products are distributed. The article appears under the heading, "Wabash Makes a Notable Record":

"Wabash, Indiana, we note, has made a notable record in the handling of the business of the Honeywell Heating Specialties Company, of that city, although of course every employe through whose hands the business passed and destination agents deserve a part of the credit.

"According to Agent W. J. Fisher, the heating company last



Second Floor Layout

Furnace fans and blowers. How many people could you find in 1917 who would agree that a fan or blower was essential to the furnace?

Who would have dared in 1914 to have asked \$1,154 for heating the home illustrated in the accompanying sketches? Not an unfair price for a \$30,000 home.

It's only a few years back that someone said we would cool our homes as well as heat them with the warm air system. Do you realize that that time is not far away?

opportunities they enjoy. They seldom, if ever, give out of their experiences the things they have discovered that would help the other fellow who is to come after them.

These expressions are forthcoming because we had occasion, recently, to overhear a salesman make remarks to a prospective furnace buyer which would indicate that his company had just about been the dominating factor in all that had gone over in the way of research and improvements in furnace heat-

year, forwarded 4,500 shipments from Wabash amounting to 36,000 pieces, and was not required to file a claim against any of them. On its inbound business, the same company received 4,000 shipments, consisting of 20,000 pieces, and only two claims were filed on the traffic."

G. & S. Stove & Furnace Company Now Located In Its New Store

The G. & S. Stove and Furnace Company, 4224, West North Avenue, Chicago, has completed the activities of moving into its new and spacious quarters. The new location is directly across the street from where the store was formerly conducted.

The basement of the new store has been especially fitted out as a work shop, where the forming and assembling operations are carried on.

The proprietors of this company are Mr. Fred Goodall and Mr. Edward N. Stahler, two unusually energetic men. In spite of the short time that the G. & S. Stove and Furnace Company has been in business it has developed a good volume of stove and furnace sales. At the present time the company has three men employed and it is expected that two more will be put on in the near future. The company is doing an excellent business.

Minwool an Insulation for Warm Air Furnaces

A form of insulation especially adaptable for use with warm-air furnaces and composed of mineral or rock wool, made into the form of a felt, known as Minwool, is manufactured by the Minwool Insulating Company, Toledo, Ohio. This material has been found sufficiently flexible to take care of the extremes of expansion and contraction to which warm air furnaces are liable.

Minwool is composed of millions of tiny tubular air cells. One of its interesting characteristics is that it acts as a muffler and helps materially to silence both operating and combustion noises. At the same time it increases the rigidity of the

furnace housing, tending to stop any vibration of the sheet metal.

Minwool has been rated by the Government Bureau of Standards as showing one-sixth the heat loss of asbestos, cement and approximately one-half the heat loss of 85 per cent magnesia.

Glenn Halford Buys Interest in Jameson Heating Company, Atlanta

Glenn Halford, who has until recently been connected with the Meyer Furnace & Supply Company at Milwaukee, Wisconsin, has purchased an interest and taken charge of a retail warm air furnace establishment.

The store is located at Atlanta, Georgia, and is known as the Jameson Heating Company. The best of wishes attend Mr. Halford.

Minneapolis Heat Regulator Company Out With New Sales Promoters

The Minneapolis Heat Regulator Company, Minneapolis, Minnesota, makers of temperature controlling devices, have designed and are now distributing for dealer use eight entirely new and attractive circulars descriptive of their product.

Each one of these eight pieces contains a very entertaining human interest story. The reader's attention is very deftly carried from the ordinary commonplace topics to the subject of heat control, fuel saving and general comfort.

Some very excellent pointers and sales pointers can be gained from this new series of circularization material. A new "slant" on the heating industry can be obtained from the series.

Retail Salesmen Respond to Well-Organized Program

Responsibility Tends to Develop Latent Ability—Sales Increase Under Proper Stimulus

DO you know the determining factor that makes the retail business a success? It's an old, old question; one that always brings forth a wide range of opinions. What is it—that determined factor? Here's what one retail merchant discovered about his organization.

My experience and observation leads me to believe that there is but one answer. And when you have said "Selling" you are right at the very heart of the problem. Selling! That's the whole secret of successful merchandising. All arguments to the contrary notwithstanding.

How does a retailer make his profit, anyway? There is only one answer: Selling merchandise.

My experience has been that it is quite easy, indeed, for the retailer to make dimes in buying and at the same time actually lose dollars. A retailer, by an exceptional stroke of buying strategy, might force the purchase of an article at a dollar that is worth at retail much more.

It may be a wonderful buy and he has a splendid tentative profit. Just the same, if he does not sell the article he not only fails to get the profit but loses his original dollar, as well. Yes, there is a profit in buying—maybe.

The selling profit is a cash profit; therefore the only real profit.

No matter what else a retailer should be, he must be above all else a "seller," if he is to be successful in retail merchandising.

Sales! Sales! Sales! That is the thing we retailers want and in greater abundance. Any legitimate scheme of merchandising that will accomplish this end is worthy of consideration.

In any program for the speeding up of sales, a number of factors must necessarily enter into it, for to be successful in speeding up sales in a big way, the dealer cannot depend upon any single factor. But I have found the sales-force to be the most important factor contributing

to the success of any speeding-up sales program. Through the efforts of the sales organization more can be accomplished toward the speeding up of sales than any other one factor. In fact, the sales-force properly organized and provided with the proper stimulus can accomplish wonders in speeding up sales.

I have found that the retail salesman will respond marvelously if provided with a well-organized program and given a share of the responsibility to shoulder. Responsibility tends to develop dormant ability and many an otherwise listless salesman will develop into a crack-jack salesman under the weight of responsibility, no matter how moderate or insignificant that responsibility may be. The merchant should have a program that will tap the reservoir of potential ability that may be lying dormant in the sales organization and release it to the profit of himself and the salesman.

While manager of a large hardware store, I put into operation a program that proved tremendously worthwhile. This program put upon each salesman a share of the responsibility of the management of the business. In putting this program into operation, my first step was to divide the store into as many departments as there were salesmen and place each salesman in charge of one of the departments. He was made to feel that he was directly responsible for the growing success of that particular department. In arranging the departments and in the selection of the salesman placed in charge, I studied each salesman, taking particular note of the lines of merchandise for which the salesman had particular aptitude. For instance, one salesman had a very defined fondness for tools—he knew tools from A to Z, and took great delight in selling tools. He also prided himself on his ability to sell cream separators and felt that no other salesman in the store could handle the line quite as effectively as he. The result was that I placed these two lines under his charge as his two main lines. Another sales-

man was particularly fond of selling guns, fishing tackle and all sorts of sporting goods. Whenever he had a spare moment you would find him in this department. Sporting goods went to him as his main line. And so on down the list.

As soon as I had worked out this part of the program, I called the salesmen together and carefully explained to them that each one would have complete charge of his own department—that they were to be responsible to me for the growth of their respective departments. Their responsibility involved the attractive display of the merchandise; keeping a careful check upon stock, not only to have on hand a well assorted stock in order to clinch all sales, that came our way, but also not to have on hand unnecessary stock, tying up extra capital and causing loss through interest charges, depreciation, change in styles, etc.; watch for the development of new merchandise and to study out and suggest effective means of selling their merchandise.

The salesmen were not given authority to purchase merchandise or to execute any selling idea excepting, of course, that might have to do with his personal selling efforts in the store or in the display of the merchandise. The salesman worked out the idea and plans and brought them to me. For example, if the salesman in charge of the tool department found that our stock was low on any certain line of tools, he would take a careful inventory of stock on hand and turn in to me his findings, together with his recommendation as to what and how many should be purchased. If his recommendation did not coincide with my idea, I would call him in and we would discuss the matter. Perhaps I was wrong, if so, he could correct me. If he was wrong, I could correct him. Of course, I had the final say, but I always tried to get him to see it my way if he was wrong and by so doing I always had his hearty cooperation. If the salesman would suggest that some new items be added to stock, I had him give me his reasons for it. If he

"sold" me on the idea the new merchandise was purchased. In this manner, the salesman always felt responsible for the sale of the merchandise and put forth special effort to sell it in order to prove his decision in the matter right.

The same is true in connection with selling suggestions.

Each salesman was encouraged to give thought to the development of sales in his particular lines. Trade papers, selling suggestions received from manufacturers, etc., were turned over to them for their attention.

In order to stimulate the best efforts a quota for sales in each department was set, and a bonus offered to the salesman whose department showed a certain gain over the quota set. A record of sales in each department was kept separate and each salesman furnished with the record of sales each week, so that he could see just what progress his department was making. The salesman takes great delight in seeing his department forge ahead and it stimulates even greater efforts. But in order to check any tendency on the part of one salesman to neglect any opportunity of selling merchandise not in his department, a share of the bonus was made dependent upon all the other departments reaching their quota. Therefore, each salesman had an interest in the progress of every other department and each cooperated with the other in speeding up sales in the other departments. While each salesman had charge of a separate department his selling activities covered the entire store.

Behind the counters of our stores stand the Wanamakers and Marshall Fields of the future. A tremendous amount of merchandising ability lies dormant waiting for development, much of which can be turned to good account for the retailer if he will but afford a means of development.

The sales-force is an important factor in selling and every means should be used to develop its potential 100 per cent possibilities.

There isn't the least bit of mys-

September 18, 1926

ter connected with this subject of cooperation. It simply means the pulling together of more than one interest for a common purpose. So it is only logical that when the hardware dealer and his sales-force co-operate in bringing about a more successful business the results are bound to be increased sales, and this not only benefits the hardware dealer, but it will benefit the salesmen as well.

A. J. Bridges Finds a Friend in Artisan

TO AMERICAN ARTISAN:

I am mailing you \$2.00 for my paper. I could not get along without AMERICAN ARTISAN. It is sure like a friend backing you up on every side.

Yours very truly,
A. J. BRIDGES.
Bedford, Iowa.

Bank Liable When It Permits Endorser to Remove Signature from Note

"Take my note for my past due account?" the customer queried.

"Yes, if you'll get your brother John to endorse it," the hardware merchant agreed, accepted the note, and placed it in the local bank for collection.

A week later, John, the endorser, strolled into the hardware store. "Have you got a note endorsed by me?" he queried.

"I have and I haven't," said the merchant, "I had the note here, but I left it at the bank for collection."

The endorser turned and made his way to the bank.

Entering the bank, he said: "I understand that you're holding a note made by my brother in favor of the hardware merchant up the street, and endorsed by me." The cashier confirmed his impression.

"At the time I endorsed the note there was an understanding between me and my brother in reference to a certain business matter. This business matter wasn't carried out, and my brother agreed to take my endorsement off the note," the endorser explained.

"What did you want us to do?" asked the cashier.

"You know that my brother is good for three times the face value of that note. Now, if you'll just take my endorsement off the back of the note everything will be all right," the endorser proposed. The cashier located the note, and drew two heavy red lines through the endorsement in question.

Time passed on, the note fell due, the customer was in bankruptcy, the endorser refused to pay, and the merchant sued the bank in the Georgia courts.

"Where the pledgee permits the endorser to erase or withdraw his endorsement from the notes without the consent of the pledgor, thus rendering the notes insolvent, such action on the part of the pledgee amounts to a conversion of the notes, just as much so as if it should sell the notes and receive the value in money therefore," was the reasoning of the court, as set out in 117 Southeastern Reporter, 741.—M. L. Hayward.

American Hardware Delegates Should Send Names to Secretary

Charles F. Rockwell, Secretary-Treasurer American Hardware Manufacturers' Association, calls attention to the necessity of sending names of delegates who will attend the Atlantic City convention, October 19, 20, 21, 22.

Here's what he says:

"For the later convenience of all those who attend the convention, it is important that the names of the delegates who will represent you at Atlantic City reach us promptly. This will enable your delegates to receive their identification badges immediately upon registration at The Ambassador Hotel and insure the publication of their names in the list of those who propose to attend the convention, which this year will be ready for distribution upon arrival.

"If it is possible to make the first issue of this Register practically complete, the information contained

will be of great assistance to you in locating your friends.

"Therefore, please list immediately on the blank mailed you the names of your delegates, the ladies who will accompany them and the hotel at which they will register, and mail promptly to the American Hardware Manufacturers' Association, 342 Madison Avenue, New York City."



National Hardware Association convention, Atlantic City, New Jersey, October 19, 20, 21, 22; headquarters, Ambassador Hotel; James T. Fernley, secretary-treasurer, Philadelphia.

American Hardware Manufacturers Association convention, Atlantic City, New Jersey, October 19, 20, 21, 22, 1926; headquarters, Ambassador Hotel; Charles F. Rockwell, 342 Madison Avenue, New York, secretary-treasurer.

National Warm Air Heating and Ventilating Association mid-year meeting, Urbana, Illinois, December 1 and 2, 1926, Urbana-Lincoln Hotel. Allen W. Williams, secretary, 174 East Long Street, Columbus, Ohio.

Michigan Retail Hardware Convention and Exhibition, Grand Rapids, Michigan, February 8, 9, 10, 11, 1927. Arthur J. Scott, Secretary, Marine City, Michigan. K. S. Judson, 248 Morris Avenue, Grand Rapids, Michigan, Exhibit Manager.

Pennsylvania and Atlantic Seaboard Hardware Association, Philadelphia Commercial Museum, February 15, 16, 17 and 18, 1927. Sharon E. Jones, Secretary-Treasurer, Wesley Building, Philadelphia, Pennsylvania.

Illinois Retail Hardware Association convention and exhibit, Hotel Sherman, Chicago, February 15, 16, 17, 1927. Leon D. Nish, 14 North Spring Street, Elgin, Illinois, secretary.

New England Hardware Dealers' Convention and Exhibition, Mechanics' Building, Boston, Massachusetts, February 22, 23 and 24, 1927. George A. Fiel, Secretary, 80 Federal Street, Boston.

Michigan Sheet Metal and Roofing Contractors' Association, Pantlind Hotel, Grand Rapids, March 1, 2 and 3, 1927. Frank E. Ederle, Secretary, 1121 Franklin Street, S. E., Grand Rapids.

Texas Sheet Metal Contractors' Association, Hotel Adolphus, Dallas, Texas, April 24 and 25. Harry Stanyer, Secretary-Treasurer, 2422 Alamo Street, Dallas.

National Association of Sheet Metal Contractors, Adolphus Hotel, Dallas, Texas, April 26, 27, 28 and 29, 1927. W. C. Markle, Secretary, 850 West North Avenue, Pittsburgh, Pennsylvania.

Durable All the Way Through—

Inland Copper Alloy Steel Sheets

For All Exposed Uses

INLAND STEEL COMPANY, 38 So. Dearborn St., Chicago

Works: Indiana Harbor, Indiana; Milwaukee, Wisconsin
Chicago Heights, Illinois

Branch Offices and Representatives: St. Paul, St. Louis,
Salt Lake City, Milwaukee, Kansas City, New Orleans, El Paso

HERBERT JOSEPH.

Say you saw it in AMERICAN ARTISAN—Thank you!

Sheet Copper Roof Protects Cleveland Police Headquarters Buildings

Ornamental Cresting, Door and Window Grills Are Also Made of Copper

SEPTEMBER is on the way to proving conclusively that the surprisingly active steel market of July and August was not at the expense of the upturn normally looked for at this season.

Considering all districts, specifications, shipments and new orders thus far in September have been heavier than in the first half of August, which in turn topped July. At this time there is every indication that this gait will carry through the remainder of the month.

Steel works operations continuing unchanged at slightly over 85 per cent, September output of steel ingots would seem to be on a parity with August, which with 4,004,583 tons was the best month since April. In general, the production of steel ingots thus far in 1926 is thirty days ahead of the corresponding period of 1925, the record year.

Fourth quarter buying of finished steel has acquired momentum in the past week, especially at Chicago, but the volume of a buying movement is absent.

At Chicago fourth quarter inquiry in the past week has been double that of the preceding week. Producers feel more sure of their price position than a week ago.

Pig Iron

Pig iron meltters' stocks generally are low. Producers' stocks in many directions are heavy, but are being reduced, because several merchant interests are shipping more than they are making.

The price situation is practically unchanged, but important interests look for an advance of at least 50 cents within a week or two.

A purchaser divided 1,000 tons of malleable between a valley steel works furnace and a valley merchant producer at \$18, valley.

Another valley merchant producer sold 400 tons of No. 2 iron at \$18,

valley, and several smaller sales at the same level. A producer maintaining \$18.50 reports no sales.

A price of \$17.50 still is available in at least two directions. Small sales of Bessemer iron are noted at \$18.

One interest sold a total of 500 tons of Bessemer at \$19, valley. Some makers are holding basic at \$17.50, but one merchant stack still quotes \$17, valley.

At Chicago September shipment of northern No. 2 and malleable pig iron are being maintained at a rate practically equivalent to the August movement.

The price of \$21 is governing fourth quarter contracts, which are being placed steadily. Some first quarter inquiries are out, but producers are not encouraging them.

At Birmingham numerous small sales of pig iron for delivery this month are noted.

A few sales also have been made for fourth quarter.

Many local consumers have iron in their yards and can wait for additional stock.

The price is steady at \$21, base, Birmingham.

Copper

Metal sold at 14.32½ cents Connecticut and 14.45 cents to 14.50 cents Midwest after being a little easy, and it was thought that prices would strengthen a little more as the significance of the monthly statement was realized.

Stocks of refined copper at the opening of this month were 66,658 tons, an increase of 1,718 in the month, but the stocks of blister copper were cut by a much deeper figure, showing that the large output of refined metal was at the expense of supplies of raw material.

Tin

Tin continued to skyrocket, crossing 69 cents for Straits and making

by all odds the highest price since government control was removed at 72.50 cents soon after the end of the war.

Supplies continue in a tight situation, though it is thought shipments from the Orient may be a little more liberal this month.

The premium of spot over futures has increased at an average of 2 cents. The market is regarded as very dangerous at this level.

Zinc

With record shipments of zinc cutting stocks to a low level, 18,164 tons, the market has been stronger without the aid of big buying or of much firmness abroad.

Fair business was done last week in prime western at steady prices, mostly 7.40 cents East St. Louis.

Lead

The price was cut from 8.90 cents to 8.75 cents New York, while the East St. Louis price fell from 8.60 cents and 8.65 cents to about 10 points less.

Not much buying has been done the past week, but the East St. Louis market has been a little more active than New York.

Solder

Chicago warehouses prices on solder are as follows: Warranted 50-50, \$43.25; commercial 45-55, \$40.25, and plumbers', \$37.25, all per 100 pounds.

Old Metals

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.50 to \$18.00; old iron axles, \$24.00 to \$24.50; steel springs, \$18.50 to \$19.00; No. 1 wrought iron, \$13.00 to \$13.50; No. 1 cast, \$16.00 to \$16.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; zinc, 5 cents, and cast aluminum, 19 cents.



**Shaped
in Steel** *Homes Can be
Fireproof too!*

FROM roof to basement, Sheet Steel makes possible homes as fireproof as the most modern office building.

Sparks on roofs and lightning, two of the greatest fire hazards, are eliminated by the use of a well-grounded steel roof. Metal lumber gives framing that can never catch fire. Plaster on expanded metal mesh

both the even heat and proper humidity for health and happiness.

And these fire-safe homes may be beautiful. The plasterer has become an artisan. The most marvelous combinations of color and texture can be built into the walls and ceilings. The steel base insures against warping, bowing and cracks.

**Sell the Fire Safety of
Sheet Steel**

THERE is a real and very large market in every community for the service of the sheet metal contractor who sells the idea of fire safety. Steel industrial buildings, steel roofs, steel coverings for exposed combustible walls, steel fire doors, steel garages—these are but a few of the many ways in which Sheet Steel is used to promote fire safety. It pays every contractor to push this market in his community. This advertisement in The Saturday Evening Post is typical of the advertising support that is helping you get this business. SHEET STEEL TRADE EXTENSION COMMITTEE, OLIVER BUILDING, PITTSBURGH, PA.

SHEET STEEL
FOR SERVICE

Fire Prevention Week this year October 3 to 9.
Take advantage of the selling opportunity it presents.

Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS

PIG IRON

Chicago Foundry	\$21.50
Southern Fdy., No. 2	27.01
Lake Superior Charcoal	29.04
Malleable	31.00

FIRST QUALITY BRIGHT TIN PLATES

IC 20x28	112 sheets	\$25.19
IX 20x28	112 sheets	29.60
XXX 20x28	56 sheets	16.20
XXXX 20x28	17.55	
XXXXX 20x28	18.95	

TERNE PLATES

	Per Box	
IC 20x28, 40-lb.	112 sheets	\$27.90
IC 20x28, 40-lb.	112 sheets	30.00
IC 20x28, 25-lb.	112 sheets	22.20
IC 20x28, 25-lb.	112 sheets	26.20
IC 20x28, 20-lb.	112 sheets	20.20
IV 20x28, 20-lb.	112 sheets	23.00
IC 20x28, 15-lb.	112 sheets	16.55

"ARMCO" INGOT IRON PLATES

No. 8 ga. up to and including

1/4 in.—100 lbs. \$4.55

COKE PLATES

Cokes, 80 lbs., base, 20x28	\$12.00
Cokes, 90 lbs., base, 20x28	12.80
Cokes, 100 lbs., base, 20x28	13.00
Cokes, 107 lbs., base, IC	
20x28	13.30
Cokes, 185 lbs., base, IX	15.70
Cokes, 160 lbs., base, 66	
sheets	8.70
Cokes, 175 lbs., base, 56	
sheets	9.55
Cokes, 195 lbs., base, 56	
sheets	10.40

BLUE ANNEALED SHEETS

Gage 10 ga.	per 100 lbs.	\$2.30
"Armco" 10 ga.	per 100 lbs.	4.00

ONE PASS COLD ROLLED BLACK

No. 18-20.....	per 100 lbs.	\$3.75
No. 22.....	per 100 lbs.	3.90
No. 24.....	per 100 lbs.	3.95
No. 26.....	per 100 lbs.	4.05
No. 27.....	per 100 lbs.	4.10
No. 28.....	per 100 lbs.	4.20
No. 29.....	per 100 lbs.	4.35
No. 30.....	per 100 lbs.	4.45

"ARMCO" GALVANIZED

"Armco" 24.....	per 100 lbs.	\$6.25
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GALVANIZED

No. 16.....	per 100 lbs.	4.30
No. 18.....	per 100 lbs.	4.45
No. 20.....	per 100 lbs.	4.60
No. 22.....	per 100 lbs.	4.65
No. 24.....	per 100 lbs.	4.80
No. 26.....	per 100 lbs.	5.05
No. 27.....	per 100 lbs.	5.15
No. 28.....	per 100 lbs.	5.30
No. 30.....	per 100 lbs.	5.70

BAR SOLDER

Warranted		
50-50	per 100 lbs.	4.25

Commercial		
45-55	per 100 lbs.	40.25

Plumbers	per 100 lbs.	37.25
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ZINC

In Slabs.....		\$8.50
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SHEET ZINC

Cash Lots (600 lbs.)		\$13.75
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Sheet Lots.....		14.75
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BRASS

Sheets, Chicago base		19% c
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Tubing, brazed base		28% c
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Mill base		19% c
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Wire, base		19% c
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Rods, base		17% c
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COFFEE

Sheets, Chicago base		22c
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Mill base		22c
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Tubing, seamless base		26c
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Wire, No. 9 B & S Ga.		19% c
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Wire, No. 16, B & S Ga.		19% c
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Wire, No. 11 B & S Ga.		19% c
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Wire, No. 8 B & S Ga. and heavier		19% c
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HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

LEAD

American Pig	\$ 9.60
Bar	10.60
Sheet	
Full Coils	per 100 lbs. 14.00

Cut Coils	per 100 lbs. 14.25
TIN	
Pig tin	per 100 lbs. 79.00
Bar tin	per 100 lbs. 80.00

ASBESTOS

Paper up to 1/16	.60 per lb.
Roll board	.64c per lb.
Mill board 3/32 to 1/4	.60c per lb.
Corrugated Paper (\$50 sq. ft. to roll)	\$6.00 per roll

BRUSHES

Hot Air Pipe Cleaning	Bristle, with handle, each	\$0.85
Flue Cleaning	Steel only, each	1.25

BURRS

Coppers Burrs only	45%
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CEMENT, FURNACE

American Seal, 5-lb. cans, net	2.40
American Seal, 10-lb. cans, net	2.80
American Seal, 25-lb. cans, net	2.00

Pecora	per 100 lbs. 7.51
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CHIMNEY TOPS

Iwan's Complete Rev. & Vent	30%
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Iwan's Iron Mountain only	35%
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Standard	30 to 40%
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CLINKER TONGS

Front Rank, each	\$0.75
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Per doz.	8.40
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CLIPS

Damper	
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Acme, with tail pieces, per doz.	\$1.25
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Non Rivet tail pieces, per doz.	25
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CORNICE BRAKES

Chicago Steel Bending	
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Nos. 1 to 6B	Net
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CUT-OFFS

Kuehn's Korrett Kutoffs:	
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Galv., plain, round or cor. rd. standard gauge	40%
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26 gauge	30%</
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INSIST UPON
DIECKMANN
ELBOWS AND SHOES



F. Dieckmann

TRADE MARK

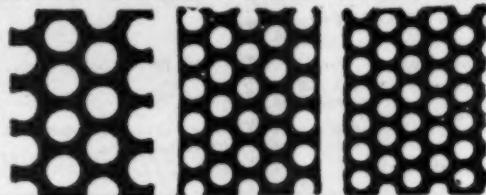


ALL JOBBERS HAVE
THEM OR CAN GET
THEM FOR YOU



The Ferdinand Dieckmann Co. P. O. Station B,
Cincinnati, Ohio

PERFORATED METALS



All Sizes and Shapes of Holes
In Steel, Zinc, Brass, Copper, Tinplate, etc.
For All Screening, Ventilating and Draining
EVERYTHING IN PERFORATING METAL

THE HARRINGTON & KING PERFORATING CO.
5649 FILLMORE ST., CHICAGO, ILL., U. S. A.
NEW YORK OFFICE: 114 LIBERTY ST.

EVERYTHING USED IN SHEET METAL WORK

A Complete Stock Insures Prompt Shipment

In our warehouse you will find one of the most complete stocks in the country. Not only complete as to quantity but selected by men who have had many years of experience.

There are 12 men in our employ who have been with us a total of 261 years—an average of 22 years per man. It is the knowledge resulting from this experience that we offer you in Osborn Service.



The 12-Cylinder Ventilator
Used in Every State
in the Union.

SPECIFY ÆOLUS
VENTILATORS

ÆOLUS FOR HOMES

The home should be properly ventilated—few of them are. Here is a sales opportunity often overlooked by the average Sheet Metal Worker, but one which offers a lucrative business to those who take advantage of it.

Æolus-Dickinson Co.
Venti Makers Since 1888
3333-53 South Artisan Avenue
CHICAGO
Phone: Lafayette 1862-1863

The J. M. & L. A. OSBORN CO.

CLEVELAND

Buffalo Warehouse, 64-68 Rapin Street

ADVERTISERS' INDEX

The dash (—) indicates that the advertisement runs on a regular schedule but does not appear in this issue.

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NETTING, POULTRY	
Galvanized before weaving	57½-5%
Galvanized after weaving	52½-5%
PASTE	
Asbestos Dry Paste:	
200-lb. barrel	\$16.00
100-lb. barrel	8.75
35-lb. pail	5.50
10-lb. bag	1.10
5-lb. bag	.60
2½-lb. cartons	.36
PIPE	
Conductor	
Cor. Rd., Plain Rd. or Sq.	
"Interlock" Galvanized	
Crated and nested (all gauges)	75-2½%
Crated and not nested (all gauges)	70-15%
"Milcor" "Titlelock" Uniform	
Blue Stove	
25 gauge, 5 inch U. C. nested	11.00
28 gauge, 6 inch U. C. nested	12.00
28 gauge, 7 inch U. C. nested	14.00
30 gauge, 5 inch U. C. nested	10.00
30 gauge, 6 inch U. C. nested	10.50
30 gauge, 7 inch U. C. nested	13.00
T-Joint Made up	
6-inch, 28 ga.	per 100 \$2.50
Furnace Pipe	
Double Wall Pipe and Pipe Fittings	40-10%
Single Wall Pipe, Round	
Iron Pipe Galvanized	40-10%
Galvanized and Black Fittings	40-10%
Milcor Galvanized Pipe and Fittings	40-10%
Lead	
Per 100 lbs.	\$12.50
POKERS, STOVE	
Wr't Steel, str't or bent	per doz. \$0.75
Nickel Plated, coll handles	per doz. 1.10
POKERS, FURNACE	
Each	\$0.50
PULLEYS	
Furnace Tackle	per doz. \$0.60
	per gross 6.00
Furnace Screw (encased)	per doz. .75
Ventilating Register	
Per gross	2.00
Small, per pair	.30
Large, per pair	.50
PUTTY	
Commercial Putty, 100-lb. kits	\$3.40
QUADRANTS	
Malleable Iron Damper	10%
REDUCERS—Oval Stove Pipe	
Per doz. 7-6, 1 doz. in carton	\$2.00
BASEBOARD REGISTERS	
Excelsior	50%
FLOOR REGISTERS AND BORDERS	
Cast Iron	20%
Steel and Semi-Steel	40%
In lots less than 50	33½%
Board	40%
In lots less than 50	33½%
Adjustable Ceiling Ventilators	40%
Register Faces—Cast and Steel	
Japanned, Bronzed and Plated, 4x12 to 14x14	40%
In lots less than 50	33½%
Large Register Faces—Cast, 14x14 to 33x42	50%
Large Register Faces—Steel, 14x14 to 33x42	65%
In lots less than 50	60%
RIDGE ROLL	
Milcor	
Plain Ridge Roll, b'did	75-10%
Galv. Plain Ridge Roll, crated	75-10%
Globe Finials for Ridge Roll	50%
ROOFING	
Best grade, slate surf. prep'd	per Square \$2.30
Best talc surfaced	2.65
Medium talc surfaced	2.00
Light talc surfaced	1.20
Red Rosin Sheeting, per ton	57.00
SCREWS	
Sheet Metal	
No. 7, 3/4x1/4, per gross	\$0.52
No. 10, 3/8x3/16, per gross	.63
No. 14, 3/4x3/4, per gross	.89
SHEARS, TINNERS' & MACHINISTS'	
Viking	\$.22.00
LENNOX THROATLESS	
No. 18	35%
Shear blades	10%
(f. o. b. Marshalltown, Iowa.)	
SHOES	
Milcor	
Galv. Std. Gauge, Plain or corr. round flat crimp	65%
26 gauge round flat crimp	40%
24 gauge round flat crimp	10%
Conductor	65%
SNIPS, TINNERS'	
Clover Leaf	40 & 10%
National	40 & 10%
Star	50%
Milcor	Net
SQUARES	
Steel and Iron	Net
(Add for bluing, \$3 per doz. net.)	
Mitre	
Try	Net
TRY AND BEVEL	
Try and Mitre	Net
Fox's	per doz. \$6.00
Winterbottom's	10%
STOPPERS, FLUE	
Common	per doz. \$1.10
Gem, No. 1	per doz. 1.10
Gem, flat, No. 3	per doz. 1.00
VENTILATORS	
Standard	30 to 40%
WIRE	
Plain annealed wire, No. 8 per 100 lbs.	\$3.06
Galvanized barb wire, per 100 lbs.	3.90
Wire cloth—Black painted, 12-mesh, per 100 sq. ft.	1.75
Cattle Wire—galvanized catch weight spool, per 100 lbs.	3.85
Galvanized Hog Wire, 30 rod spool, per spool	3.34
Galvanized plain wire, No. 8, per 100 lbs.	3.50
Stove Pipe, per stone	1.10
WRINGERS	
No. 790, Guarantee per doz.	\$55.00
No. 770, Bicycle	per doz. 52.50
No. 670, Domestic	per doz. 48.50
No. 110, Brighton	per doz. 48.50
No. 750, Guarantee	per doz. 55.50
No. 740, Bicycle	per doz. 52.50
No. 21, Pioneer	per doz. 39.00
No. 2, Superb	per doz. 39.00

*** ART METAL *
CEILINGS
and
SIDE WALLS**

The kind that sell and satisfy

WE have just recently issued a new 108-page book of new designs—patterns that are up-to-date and good looking. We use only high grade metals and our machinery is the latest and best, producing clearly stamped figures.

Friedley-Voshardt Metal Ceilings are easy to erect—they fit and stay put—they sell and satisfy.

If you have not received a copy of our new catalog write for your copy today.

**ZINC—COPPER—LEAD
STAMPINGS**

We are specialists in the field of Sheet Metal Architectural Ornaments. Write for our catalog.

Friedley-Voshardt Co.

Office: 733-737 S. Halsted St. Factory: 761-777 Mather Street CHICAGO, ILLINOIS

The NEW IMPROVED "STANDARD"

Rotable Ventilator

This favorite cone-shaped ventilator is now improved in several important points.

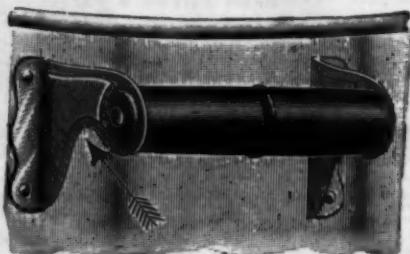
The weight of the ventilator body is now carried on a concave thrust bearing nested in the apex of the conical body. This bearing turns upon the pivot point of the stationary center spindle.

The bronze Guide Bushings are now made of non-corrosive bronze which minimizes friction and any tendency to screech when body is rotating.

There are other new features. Write today for new catalog and price list.

Patents pending
STANDARD VENTILATOR CO., LEWISBURG, PA.

KEYSTONE BOILER HANDLES



WE make a complete line of Boiler Handles.

Also handles for Boiler Covers. Cut shows No. 40 style. Let us send you samples.

Complete catalog on request.

BERGER BROS. CO.

229 to 237 ARCH STREET PHILADELPHIA, PA.
Warehouses and Factories: 100 to 114 Broad Street
Manufacturers of "Quaker City" line of Meters, Ends, Caps and Outlets

C. G. HUSSEY & CO.

Rolling Mills and Office, PITTSBURGH, PA.

Manufacturers of

SHEET COPPER, BOTTOMS, ROLL COPPER, TINNED and POLISHED COPPER, NAILS, SPIKES, RIVETS, CONDUCTOR PIPE, EAVES THROUH, ELBOWS, SHOES, MITRES, CORRUGATED COPPER SHEETS, CRIMPED COPPER SHEETS, COPPER WALL TIES, COPPER LATH, ETC.

Branch Warehouses in New York, Philadelphia, Cincinnati & Chicago
Member, Copper & Brass Research Association

Memorial Monuments

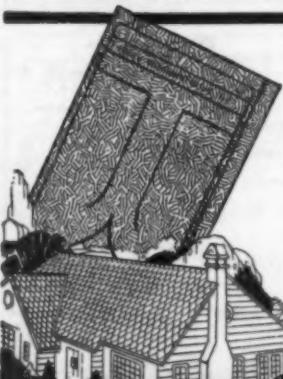
Write for Prices and Illustrations

Gerock Bros. Mfg. Co.

**Sheet Metal Ornaments
and
STATUARY**

1252 So. Vandeventer Ave'

St. Louis, Mo., U. S. A.



The difference between the two kinds of Galvanized Shingles is this:

HAND Dipped Galvanized Shingles are made from prime tin plate and immersed in molten zinc—all edges, as well as both sides are coated.

The other kind are made from sheets which come already galvanized. We make both kinds.

CORTRIGHT METAL ROOFING CO.
50 N. 23rd Street, Philadelphia
528 S. Clark Street, Chicago

CORTRIGHT METAL SHINGLES

SPECO
SOLID SAL AMMONIAC

The secret of good soldering
is a clean iron. That means—

SPECO
SOLID
SAL AMMONIAC

SEND THIS
COUPON TODAY



Send me a
FREE SAMPLE
of SPECO SOLID
SAL AMMONIAC

Name _____

Address _____

SPECIAL CHEMICAL CO.

WAUKEGAN, ILLINOIS

A. A.

September 18, 1926

BUYERS' DIRECTORY

NO. 5 JR. PUNCH

Capacity $\frac{1}{4}$ -inch through 16 gauge

Weight	2½ pounds
Punch in center of	3 inches
Length over all	8½ inches
Height of Gap	$\frac{1}{4}$ -inch

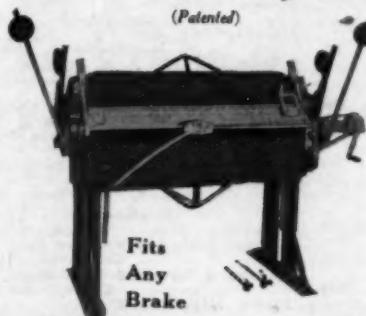
Tool shipped complete with 3 sets of Punches and Dies,
 $\frac{1}{4}$ -inch, 3-16-inch, $\frac{1}{4}$ -inch.

WRITE FOR PRICES

93 Forbes
StreetWHITNEY METAL TOOL CO.
ROCKFORD, ILLINOIS93 Forbes
Street

The Double-Duty BRAKE SHEARS

(Patented)



"All-Rite" Model to cut 20 gauge and lighter
"Special" geared to cut 16 gauge and lighter
"Hand Pull" for lighter work and small shops
Fold up out of the way so brake work can be done.

A time and money saver fully guaranteed.

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"The Power Fan's Only Rival"
Original Siphonage Ventilator
200,000 perfect installations!

The Arex-Austor holds all records for efficiency and performance—conceded as the only scientific substitute for fans, blowers and other apparatus.
Engineering Service Free Prompt Shipment from Stock
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ROYAL VENTILATORS

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DESIGNED to effectively remove impure air, fumes, etc., from Factories, Garages, Schools, etc. Made in all sizes—Metal or Glass Top. Write for catalog.

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ECONOMY VENTILATOR

Designed to meet the demand for a ventilator at lowest possible cost, yet capable of solving any ordinary ventilating problem. IT PAYS TO STOCK THEM!

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BUYERS' DIRECTORY

Posts—Steel Fence.	Rivets—Stove.	Sheets—Tin.	Tinplate.
American Steel & Wire Co., Chicago, Ill.	The Kirk-Latty Co., Cleveland, Ohio	Davis Co., Inc., C. S., Chicago, Ill. Granite City Steel Works, Granite City, Ill.	Davis Co., Inc., C. S., Chicago, Ill. Granite City Steel Works, Granite City, Ill.
Punches.	Roasters.	Merchant & Evans Co., Philadelphia, Pa.	Milwaukee Corrugating Co., Milwaukee, Wis.
Bertsch & Co., Cambridge City, Ind.	Lalance & Grosjean Mfg. Co., Chicago, Ill.	National Enameling and Stamping Co., Granite City, Ill.	National Enameling and Stamping Co., Granite City, Ill.
Parker-Kalon Corp., New York, N. Y.	The Kirk-Latty Co., Cleveland, Ohio	Taylor Co., N. & G., Philadelphia, Pa.	Osborn Co., The J. M. & L. A., Cleveland, Ohio
Peck, Stow & Wilcox Co., Southington, Conn.	Rods—Stove.	New Jersey Zinc Sales Co., The, New York, N. Y.	Taylor Co., N. & G., Philadelphia, Pa.
Whitney Mfg. Co., W. A., Rockford, Ill.	Holes—Forming.	Shingles and Tiles—Metal.	Tin—Perforated.
Whitney Metal Tool Co., Rockford, Ill.	Bertsch & Co., Cambridge City, Ind.	Cortright Metal Roofing Co., Philadelphia, Pa.	Harrington & King Perforating Co., Chicago, Ill.
Punches—Combination Bench and Hand.	Roofing Cement.	Milwaukee Corrugating Co., Milwaukee, Wis.	Tools—Tinsmith's.
Parker-Kalon Corp., New York, N. Y.	Connors Paint Mfg. Co., Wm., Troy, N. Y.	Wheeling Corrugating Co., Wheeling, W. Va.	Bertsch & Co., Cambridge City, Ind.
Whitney Metal Tool Co., Rockford, Ill.	Pecora Paint Co., Philadelphia, Pa.	Shingles—Asphalt.	Chicago Elbow Machine Co., Oak Park, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.	Hessler Co., H. E., Syracuse, N. Y.	Milwaukee Corrugating Co., Milwaukee, Wis.	Double-Duty Mfg. Co., Aurora, Ill.
Punches—Hand.	Milwaukee Corrugating Co., Milwaukee, Wis.	Shingles—Zinc.	Dreis & Krump Mfg. Co., Chicago, Ill.
Whitney Metal Tool Co., Rockford, Ill.	Roofing—Iron and Steel.	Sail Mountain Co., Chicago, Ill.	Great Lakes Supply Co., South Chicago, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.	American Roofing Mill Co., Middlebury, Ohio	Shingles—Zinc.	Hopson & Co., W. C., Grand Rapids, Mich.
Putty—Stove.	Cortright Metal Roofing Co., Philadelphia, Pa.	Milwaukee Corrugating Co., Milwaukee, Wis.	Marshalltown Mfg. Co., Marshalltown, Iowa
Connors Paint Mfg. Co., Wm., Troy, N. Y.	Friedley-Voshardt Co., Chicago, Ill.	Sifters—Ash.	Osborn Co., The J. M. & L. A., Cleveland, Ohio
Pecora Paint Co., Philadelphia, Pa.	Granite City Steel Works, Granite City, Ill.	Diener Mfg. Co., G. W., Chicago, Ill.	Peck, Stow & Wilcox Co., Southington, Conn.
Quadrants—Damper.	Inland Steel Co., Chicago, Ill.	Sky Lights.	Unishear Co., The, New York, N. Y.
Parker-Kalon Corp., New York, N. Y.	Merchant & Evans Co., Philadelphia, Pa.	David Lupton's Sons Co., Philadelphia, Pa.	Viking Shear Co., Erie, Pa.
Ranges—Combination Gas & Coal.	Milwaukee Corrugating Co., Milwaukee, Wis.	Milwaukee Corrugating Co., Milwaukee, Wis.	Whitney Mfg. Co., W. A., Rockford, Ill.
Quick Meal Stove Co., St. Louis, Mo.	Roofing—Tin.	Solder.	Whitney Metal Tool Co., Rockford, Ill.
Thatcher Co., Newark, N. J.	Taylor Co., N. & G., Philadelphia, Pa.	Chicago Solder Co., Chicago, Ill.	Terches.
Ranges—Gas.	Wheeling Corrugating Co., Wheeling, W. Va.	Double-Duty Elbow Co., Aurora, Ill.	Berns Co., Otto, Newark, N. J.
Quick Meal Stove Co., St. Louis, Mo.	Roofing—Zinc.	Milwaukee Corrugating Co., Milwaukee, Wis.	Burgess Soldering Furnace Co., Columbus, Ohio
Gray & Dudley Co., Nashville, Tenn.	New Jersey Zinc Sales Co., The, New York, N. Y.	Solder—Aluminum.	Clayton & Lambert Mfg. Co., Detroit, Mich.
Registers—Warm Air.	Rubbish Burners.	Ziener Aluminum Solder Co., Rockford, Ill.	Diener Mfg. Co., G. W., Chicago, Ill.
American Wood Register Co., Plymouth, Ind.	Hart & Cooley Co., New Britain, Conn.	Soldering Furnaces.	Double Blast Mfg. Co., North Chicago, Ill.
Chicago Furnace Supply Co., Chicago, Ill.	Sal—Ammoniac.	Berns Co., Otto, Newark, N. J.	Quick Meal Stove Co., St. Louis, Mo.
Eaglesfield Ventilator Co., Indianapolis, Ind.	Special Chemicals Co., Waukegan, Ill.	Burgess Soldering Furnace Co., Columbus, Ohio	Trade Extension.
Excelsior Steel Furnace Co., Chicago, Ill.	Schools—Sheet Metal Pattern Drafting.	Clayton & Lambert Mfg. Co., Detroit, Mich.	Copper & Brass Research Association, New York, N. Y.
Hart & Cooley Co., New Britain, Conn.	St. Louis Technical Institute, St. Louis, Mo.	Diener Mfg. Co., G. W., Chicago, Ill.	Sheet Steel Trade Extension Committee, Pittsburgh, Pa.
Henry Furnace & Fdy. Co., Cleveland, Ohio	Screws—Sheet Metal.	Double Blast Mfg. Co., North Chicago, Ill.	Transit Companies.
Independent Register & Mfg. Co., Cleveland, Ohio	Parker-Kalon Corp., New York, N. Y.	Quick Meal Stove Co., St. Louis, Mo.	Cleveland & Buffalo Transit Co., Cleveland, Ohio
Lamneck & Co., W. E., Columbus, Ohio	Screens—Perforated Metal.	Soldering Supplies.	Trimmings—Stove.
Meyer & Bro. Co., F., Peoria, Ill.	Harrington & King Perforating Co., Chicago	Double-Duty Elbow Co., Aurora, Ill.	Fanner Mfg. Co., Cleveland, Ohio.
Milwaukee Corrugating Co., Milwaukee, Wis.	Shears—Hand and Power.	Special Chemicals Co., Waukegan, Ill.	Ventilators.
Mueller Furnace Co., L. J., Milwaukee, Wis.	Double-Duty Mfg. Co., Aurora, Ill.	Specialties—Hardware.	Arex Company, Chicago, Ill.
Peoria Wood Register Co., Peoria, Ill.	Marshalltown Mfg. Co., Marshalltown, Iowa	Diener Mfg. Co., G. W., Chicago, Ill.	Aeolus Dickinson Co., Chicago, Ill.
Robinson Furnace Co., Chicago, Ill.	Pek, Stow & Wilcox Co., Southington, Conn.	Hessler Co., H. E., Syracuse, N. Y.	Berger Bros. Co., Philadelphia, Pa.
Rock Island Register Co., Rock Island, Ill.	Screws—Sheet Metal.	Stars—Hard Iron Cleaning.	Friedley-Voshardt Co., Chicago, Ill.
Standard Furnace & Supply Co., Omaha, Neb.	Parker-Kalon Corp., New York, N. Y.	Fanner Mfg. Co., Cleveland, Ohio	David Lupton's Sons Co., Philadelphia, Pa.
Stearns Register Co., Detroit, Mich.	Screens—Perforated Metal.	Statuary.	Kernahan Co., Chicago, Ill.
Tuttle & Bailey Mfg. Co., Chicago, Ill.	Harrington & King Perforating Co., Chicago	Friedley-Voshardt Co., Chicago, Ill.	Milwaukee Corrugating Co., Milwaukee, Wis.
Walworth Run Fdy. Co., Cleveland, Ohio	Shears—Hand and Power.	Gerock Bros. Mfg. Co., St. Louis, Mo.	Royal Ventilator Co., Philadelphia, Pa.
Registers—Wood.	Double-Duty Mfg. Co., Aurora, Ill.	Steel Stampings.	Standard Ventilator Co., Lewisburg, Pa.
American Wood Register Co., Plymouth, Ind.	Marshalltown Mfg. Co., Marshalltown, Iowa	American Tube & Stamping Co., Bridgeport, Conn.	Sturtevant Co., Boston, Mass.
Chicago Furnace Supply Co., Chicago, Ill.	Pek, Stow & Wilcox Co., Southington, Conn.	Dunning, Inc., E. C., Milwaukee, Wis.	Ventilators—Ceiling.
Eaglesfield Ventilator Co., Indianapolis, Ind.	Sheets—Black and Galvanized.	Stove Pipe Reducers.	Eaglesfield Ventilator Co., Indianapolis, Ind.
Peoria Wood Register Co., Peoria, Ill.	American Rolling Mill Co., Middletown, Ohio	Milwaukee Corrugating Co., Milwaukee, Wis.	Hart & Cooley Co., New Britain, Conn.
Repairs—Stove and Furnace.	Davis Co., Inc., C. S., Chicago, Ill.	Stoves—Camp.	Henry Furnace & Fdy. Co., Cleveland, Ohio
Hessler Co., H. E., Syracuse, N. Y.	Granite City Steel Works, Granite City, Ill.	Quick Meal Stove Co., St. Louis, Mo.	Independent Register & Mfg. Co., Cleveland, Ohio
Northwestern Stove Repair Co., Chicago, Ill.	Inland Steel Co., Chicago, Ill.	Stoves—Gasoline and Oil.	Tuttle & Bailey Mfg. Co., New York
Ridging.	Merchant & Evans Co., Philadelphia, Pa.	Quick Meal Stove Co., St. Louis, Mo.	Sturtevant Co., B. F., Boston, Mass.
American Rolling Mill Co., Middletown, Ohio	Milwaukee Corrugating Co., Milwaukee, Wis.	Stoves and Ranges.	Windows—Steel.
David Lupton's Sons Co., Philadelphia, Pa.	National Enameling and Stamping Co., Granite City, Ill.	Andes Range & Furnace Corp., Geneva, N. Y.	David Lupton's Sons Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.	Osborn Co., The J. M. & L. A., Cleveland, Ohio	Gray & Dudley Co., Nashville, Tenn.	Wire—Electrical.
Sheets—Iron.	Taylor Co., N. & G., Philadelphia, Pa.	Oakland Foundry Co., Belleville, Ill.	American Steel & Wire Co., Chicago, Ill.
American Rolling Mill Co., Middletown, Ohio	Wheeling Corrugating Co., Wheeling, W. Va.	Peninsular Stove Co., Detroit, Mich.	Wire Hoops.
David Lupton's Sons Co., Philadelphia, Pa.	Sheets—Iron.	Quick Meal Stove Co., St. Louis, Mo.	American Steel & Wire Co., Chicago, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.	American Rolling Mill Co., Middletown, Ohio	Thatcher Co., Newark, N. J.	Wire Rope.
Merchant & Evans Co.	Merchant & Evans Co., Philadelphia, Pa.	Tacks, Staples, Spikes.	American Steel & Wire Co., Chicago, Ill.
Tile Cement—Elastic.	Pecora Paint Co., Philadelphia, Pa.	American Steel & Wire Co., Chicago, Ill.	Wrenches.
Mention AMERICAN ARTISAN in your reply—Thank you!		New Jersey Zinc Co., The, New York, N. Y.	Tins.

WANTS AND SALES

Any yearly subscriber to AMERICAN ARTISAN may insert advertisements of not more than fifty words in our Want and Sales Columns WITHOUT CHARGE.

Such advertisements, however, must be limited to help or situation wanted, tools or equipment for sale, to exchange or to buy, business for sale or location desired.

BUSINESS CHANCES

LIGHTNING RODS—Dealers who are selling Lightning Protection will make money by writing us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable is endorsed by the Mutual Insurance Companies and hundreds of reliable dealers. Write today for samples and prices. L. K. DIDDIE CO., Marshfield, Wis.

For Sale—Sheet metal and furnace shop. Fully equipped. Established 28 years. Busy all year around. Do \$10,000 to \$12,000 per year. Good location. I have accumulated a fortune and have reached the age where I do not care for business. This is a splendid chance for someone who understands the business. \$2,000 takes it. I can furnish all the references required, banks or supply houses. Address X-55, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

For Sale—Overstocked on brand new well-known high grade furnaces which I bought at an administrator's sale. Will sell at the following prices, as long as stock lasts. These prices are about 25 per cent below the manufacturer's net price. No. 240, \$75 each; No. 248, \$110 each; No. 363, \$64 each; No. 563, \$70 each; No. 372, \$85 each; f. o. b. Hammond, Indiana. Write H. M. Maginot Sales Co., 174 Fayette Street, Hammond, Indiana. 10-3t

For Sale—Sheet metal and auto radiator work. Located in city of 30,000 population, in central Wisconsin. Machines, stock and tools inventories \$1,425.00 \$1,200.00 buys it if taken at once. Selling on account of other business. One-half cash down, balance paid off on monthly payments. Address B-51, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t

For Sale—Account of poor health doctor orders change of climate, so will sacrifice business. Will sell or lease building and tinner's tools. Well established business, 22 years operated. Good location. City of Des Moines, population 160,000. Will trade for Denver or Colorado property or business. Write Northwestern Tin Shop, 506 East Walnut Street, Des Moines, Iowa. 10-1t

Send \$2.00 for pattern and directions for making roof saddle for chimneys. Made out of one sheet of galvanized iron and 2 hours' time and sells easily at \$4.50. When once used, carpenters and masons will use no other method as it saves its price in labor. Address G. A. Sipma, Hospers, Iowa. 2-3t

For Sale—Sheet metal shop. Stock and tools less than \$2,000. Rent \$25 month. Established. Only shop in town of 7,000 population. Good paying business. Best of reasons for selling. Write or come to J. M. Hopkins' Tin Shop, 1420 Locust St., Eldorado, Illinois. 9-3t

For Sale—Well established plumbing and tinning shop in good town of 1500. Large lot and building, well located, good equipment, plenty of work. Will sell real estate, stock and tools for \$2,500. Good reason for selling. Address C. W. Fliby, Jefferson, Ashtabula Co., Ohio. 12-3t

For Sale—Fully equipped plumbing, heating and tin shop. Reasons for selling on account of husband's death. Will sell at a real bargain. Address Mrs. D. E. Schrader, Charles City, Iowa. 9-4t

BUSINESS CHANCES

For Sale—In Chicago, tin shop, general sheet metal, furnace and roofing. An established business of years' standing, fully equipped. Ideal location, plenty of work all the year around. Will stand the closest investigation. Poor health forces owner to sell. Address X-37, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

For Sale—Sheet Metal Shop. Plenty of work all year around. Good suburb near Chicago. Address B-50, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t

For Sale—Fully equipped sheet metal shop in fastest growing city in California. Santa Monica Sheet Metal Works, 122 Broadway, Santa Monica, California. 10-3t

HELP WANTED

Wanted—A married man not over 45 years of age with family, that would like steady in and outside work in a first class shop. Must be a good roofer and also well able to make and erect any style Skylight, Cornice, Ventilator or Blow Pipe job. Wages \$6.50 per day of 9 hours. Address P. O. Box 123, North Emporia, Va. 11-3t

Bookkeeper Wanted—Should be one who has had hardware experience. State age, salary expected, church preference and other important information in first letter. Direct it to the Schlafer Hardware Company, Appleton, Wisconsin, attention of Mr. George Nixon. 9-3t

Wanted—At once, experienced tinner who can install furnaces, put up eavestrough and general repairing. Steady work. State wages wanted in first letter. Address Wendt & Teichler, 318-320 River Street, Dundee, Illinois. (Located in the Fox River Valley.) 11-3t

Wanted—Experienced mechanic, competent to make galvanized iron and copper specialties, light work and permanent job for elderly man with first class mechanical training. State ability and wages wanted. Address Box 147, Comfort, Texas. 9-3t

Wanted—All around first class tinner and furnace man, one who can draft out own patterns. Must have good references. Steady job for right man. Address X-55, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

Wanted—Tinner to take entire charge of shop. Must have small amount of capital to invest. A real opportunity for a hustler, with old established concern. Address X-56, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-1t

Wanted—At once, a man that can do work that comes in a country tin shop. Also some knowledge of plumbing. I will pay \$30 per week the year around for this kind of man. Address O. L. Doward, Mt. Morris, Illinois. 9-3t

Wanted—At once, a man who can do furnace installing, eaves spouting, also plumbing. In town of 2,000. State experience, age, married or single, and wages expected in your reply. Address A. C. Buzzard, Holly, Michigan. 12-3t

Wanted—Good tinner for general job work. Capable of measuring up, making up and installing work. Address Ben Callahan, 200 North Adolph Ave., Akron, Ohio. 12-3t

Wanted—Salesman to sell Gilt-Edge furnaces. Address X-48, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t

Wanted—First-class tinner and furnace man at once. Work year around for right man. Address Wm. Smith, Sheet Metal Works, Geneva, Illinois. 9-3t

Wanted—At once, an experienced all around sheet metal worker and furnace man. Address M. G. Coffey, Polo, Illinois. 10-3t

SITUATION WANTED

Situation Wanted—By first-class plumber, hot water and steamfitter with full set of tools. A position where he can work himself into an interest in the business. Can estimate all of the above work. I would also consider running shop with commission basis. Address X-58, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-3t

Situation Wanted—By sheet metal worker of over 18 years experience in general lines. A thorough shop mechanic and good pattern cutter in cornice, heating and special work. Neat and accurate. Can take charge if required. Address, with full particulars, B-49, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t

Situation Wanted—By a sheet metal worker, who has 25 years' experience. Non-union man, wishes to hear from a reliable concern, along the western coast states. Have handled in and outside work, pattern cutting and layout, general sheet metal work light and heavy. Address C. H., 433 Wall St., Los Angeles, California. 11-3t

Situation Wanted—Sheet metal worker and furnace man wants situation in small country town with hardware store. Can estimate, figure and cut own patterns. Can come at once. Location and wages not considered. Looking for steady place. Address "Tinner," 1657 Delhi St., Dubuque, Iowa. 9-3t

Situation Wanted—By married man, all round mechanic. Can figure and estimate work or sell, also keep books. Have had experience in hardware line. Would like working interest. Southern Michigan preferred. Address X-54, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

Situation Wanted—Plumber, steam fitter with some knowledge of tinning wants steady position. Married. Will go anywhere. State particulars as to wages and housekeeping rooms. Wire or write William Gross, 205 W. Seventh St., Tama, Iowa. 9-3t

Situation Wanted—First class tinner, plumber and furnace man would prefer a hardware store. Can do anything that comes in any shop. Would like a year around position. State wages in first letter. Address Box 436, Mandan, North Dakota. 10-3t

Situation Wanted—Young man learning trade would like to get in shop doing inside and outside work year around. Address X-57, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-3t

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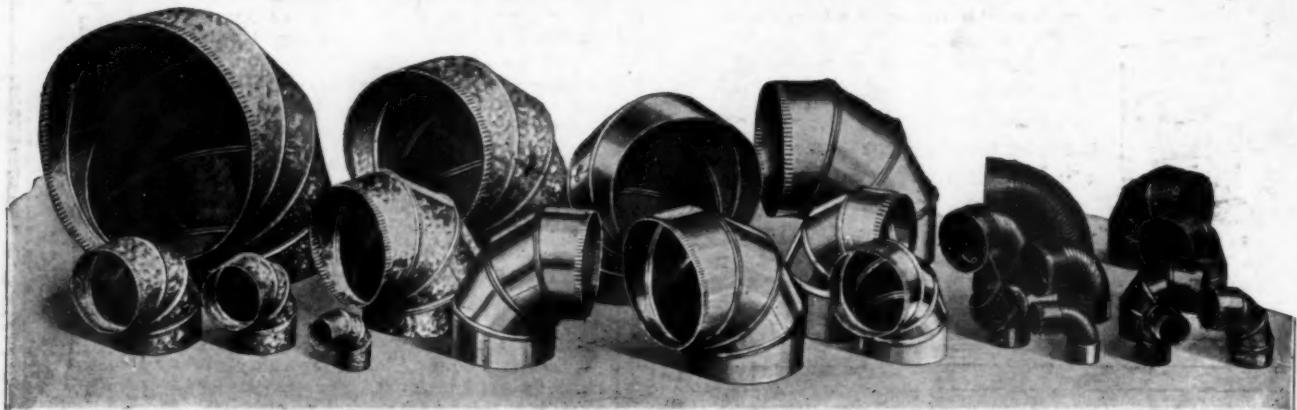
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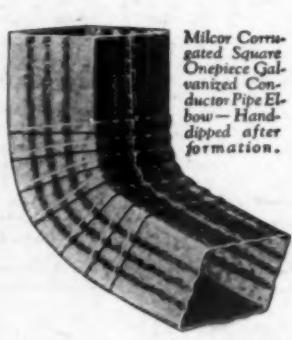
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